GE
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Pittsfield, MA 01201
USA

April 5, 2012

Via Electronic Mail and Overnight Delivery

Dean Tagliaferro
EPA Project Coordinator
U.S. Environmental Protection Agency
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

Timothy Conway
Senior Enforcement Counsel
U.S. Environmental Protection Agency
EPA New England
5 Post Office Square, Suite 100
Boston, MA 02109

Re: GE-Pittsfield/Housatonic River Site
Notice of Dispute of Cost Bill Under Consent Decree (GER400)

Dear Messrs. Tagliaferro and Conway:

Pursuant to Paragraphs 101 and 133 of the Consent Decree (CD) for the GE-Pittsfield/ Housatonic River Site, General Electric Company ("GE") submits this Notice of Dispute to the U.S. Environmental Protection Agency (EPA) with respect to EPA's Fiscal Year 2011 Bill for "U.S. Future Response Costs" under Paragraph 95 of the CD. The costs to which GE's objects and the bases for GE's objections are set forth in the attached Statement of General Electric Company.

As provided in Paragraph 133 of the CD, dispute resolution begins with informal negotiations between the parties for a two-week period (unless extended by agreement of the parties). We are hopeful that this matter can be resolved during those discussions.

Please contact either of us so that we can set a schedule for discussing these matters.

Sincerely yours,

Andrew T. Silfer, P.E.
GE Project Coordinator

Roderic J. McLaren
Counsel – Pittsfield/Housatonic River Remediation

Attachment

cc: James T. Owens, Director, OSSR, EPA New England
Bob Cianciarulo, EPA New England
Holly Inglis, EPA New England
Chief, Environmental Enforcement Section, Environment and Natural Resources Div., USDOJ
Michael Carroll, GE
Samuel Gutter, Sidley Austin
James Bieke, Sidley Austin
Samuel Boxerman, Sidley Austin

April 5, 2012

STATEMENT OF GENERAL ELECTRIC COMPANY
IN SUPPORT OF NOTICE OF DISPUTE OF FY 2011 COST BILL

INTRODUCTION

By letter dated January 11, 2012, the U.S. Environmental Protection Agency (EPA) submitted a bill to the General Electric Company (GE) seeking payment of $1,565,057 for U.S. Future Response Costs under Paragraph 95 of the Consent Decree (CD) for the GE-Pittsfield/Housatonic River Site (Site), which EPA asserts were incurred in fiscal year 2011 (FY 2011 Cost Bill). On February 29, 2012, GE sent EPA a letter objecting to the FY 2011 Cost Bill because the bill incorrectly allocated costs incurred by EPA to U.S. Future Response Costs under the CD. See Letter from S. Boxerman to T. Conway (Feb. 29, 2012) (copy attached as Exhibit A and incorporated by reference). On March 20, 2012, GE and EPA conferred and thereafter tried to reach a resolution, but the parties have not reached agreement. Accordingly, GE invokes dispute resolution pursuant to Paragraphs 101 and 133 of the CD.

Most of the costs included in the FY 2011 Cost Bill are for activities related to the Rest of River portion of the Site. The agreed-upon process for studying and making decisions regarding the Rest of River is set out in the CD (¶22) and the RCRA corrective action permit issued to GE for the Rest of River (RCRA Permit or Permit). That process is ongoing. In October 2010, in accordance with that process, GE submitted to EPA a revised Corrective Measures Study Report (Revised CMS Report) that evaluates numerous remedial alternatives for the Rest of River. EPA is still evaluating the Revised CMS Report, and has not yet approved, conditionally approved, or disapproved that report, as EPA must do under the CD (¶ 22.n) and the Permit (Special Condition [SC] II.H). If EPA chooses to conditionally approve or disapprove the Revised CMS Report, GE has the right to seek administrative review of EPA's decision under the dispute resolution procedures of the CD (¶ 141) and Permit (SC II.N).

While the Revised CMS Report has been pending before EPA, the Agency has incurred numerous costs for Rest of River activities, including evaluating the Revised CMS Report, conducting its own reviews and studies of remedial alternatives, obtaining the advice of its National Remedy Review Board (NRRB) and Contaminated Sediments Technical Advisory Group (CSTAG), and gathering information from stakeholders regarding the alternatives under evaluation. EPA has included these costs in the bill for "U.S. Future Response Costs" under Paragraph 95 of the CD.

We disagree with that allocation. EPA's assignment of these costs to U.S. Future Response Costs was improper and contrary to the CD for the following reasons:

- Based on the sequential nature of the Rest of River process specified in the CD and the Permit and on EPA's own statements during the past fiscal year, it is clear that many of the EPA activities included in the FY 2011 Cost Bill were part of EPA's evaluation of the Revised CMS Report and the alternatives described therein or of other remedial alternatives or constitute pre-decisional studies or investigations of the Rest of River,

since they occurred prior to any EPA action on the Revised CMS Report and prior to EPA's making any decision on a proposed remedy. As such, the costs of these activities constitute U.S. Oversight Costs subject to Paragraph 98 of the CD or, alternatively, U.S. Future Rest of River Capped Response Costs subject to Paragraph 96 of the CD (both of which are capped categories) – not U.S. Future Response Costs.

- To the extent that the costs charged by EPA were incurred for developing a Rest of River remedy proposal, they are not recoverable because they were not incurred pursuant to the CD, as required for U.S. Future Response Costs. Any such costs incurred before EPA completes its evaluation and issues an approval, conditional approval, or disapproval of the Revised CMS Report would be outside of and inconsistent with the process prescribed by the CD and Permit. Further, EPA's incurrence of and charging GE for such costs prior to issuing a decision on the Revised CMS Report would conflict with GE's right to administrative dispute resolution on that decision under the CD and as a matter of due process.

- Other EPA contractor costs – for handling Citizens' Coordinating Council (CCC) meetings and for document management – are not properly part of U.S. Future Response Costs, but should have been allocated to other cost categories.

BACKGROUND

A. The Cost Reimbursement Provisions of the Decree

The CD establishes the framework for EPA to be reimbursed for certain costs incurred under the Decree (CD Section XX). First, the CD defines what costs may be recoverable. It does so by dividing EPA's costs into several different categories, six of which are capped at a specific dollar amount. Relevant here are: U.S. Oversight Costs (¶ 98, capped), U.S. Future Rest of River Capped Response Costs (¶ 96, capped), and U.S. Future Response Costs (¶ 95, not capped).

U.S. Oversight Costs include costs that EPA incurs in overseeing GE's activities under the Permit, including the costs of reviewing GE's submittals under the Permit and the costs of conducting the Agency's own studies to shadow or supplement GE's work under the Permit (CD ¶ 4). U.S. Future Rest of River Capped Response Costs are costs that EPA incurs in connection with "studying or otherwise investigating the Rest of River" to support the development of the remedy (*id*). U.S. Future Response Costs are costs that EPA incurs pursuant to the CD, but that do not fall within another category (*id*).[1]

Once costs are incurred, there is a process set out for EPA to document its costs and bill GE, and for GE to pay and/or contest EPA's costs (CD ¶¶ 100-101). Among other reasons, GE may contest payment of costs if the amount was "not allocated to the correct cost category" or

[1] When EPA incurs costs "in support of tasks included in more than one cost category," EPA allocates those costs among the cost categories "using any reasonable allocation method" (CD ¶100.f) (referred to by the parties as "cross-cutting costs").

"was not within the definition of any cost category" under the Decree (CD ¶101). GE may also "contest payment of costs on the basis that the amount billed exceeds" the capped amount, as is the case here, when EPA has already exceeded the caps on both U.S. Oversight Costs and U.S. Future Rest of River Capped Response Costs, and thus any costs allocated to those categories cannot be recovered.

B. EPA's FY 2011 Activities and Cost Bill

EPA's FY 2011 Cost Bill sought more than $1.56 million that EPA allocated exclusively to U.S. Future Response Costs, the only uncapped category of costs. Excluding the costs that GE is not challenging,[2] the costs included:

EPA Regional payroll	$289,408.28
EPA Regional travel	$ 29,551.42
EPA Headquarters payroll	$ 29,689.27
EPA Headquarters travel	$ 8,264.77
Department of Justice (DOJ)	$ 60,557.96
Army Corps of Engineers – 169	$426,445.55
EPA contractors	
SRA Corp.	$166,264.34
ASRC Management	$ 50,569.88
Indirect costs	$348,430.54
Cross-cutting costs	$186,379.01

Based on GE's review of the documentation, most of these costs appear to have been incurred for activities related to the Rest of River. The CD and the RCRA Permit prescribe a linear process for Rest of River decision-making, involving the following steps:

- GE's submission of the RCRA Facility Investigation (RFI) Report, followed by EPA review and approval;[3]
- EPA's performance of human health and ecological risk assessments;
- GE's proposal of Interim Media Protection Goals (IMPGs), followed by EPA review and approval;
- GE's submission of a Corrective Measures Study (CMS) Proposal, followed by EPA review and approval;
- GE's submission of a CMS Report, followed by EPA review and approval;

[2] GE is not challenging the costs incurred by EPA finance/accounting staff, the costs associated with Allendale Schoolyard monitoring under Army Corps of Engineers IAG DW96940246, and the indirect costs charged on top of these direct costs. GE is also not challenging a charge based on an adjustment to previous ATSDR costs. These total $30,229.41, inclusive of indirect costs. Paragraph 101 of the CD provides that if GE disputes a cost bill, GE will pay all uncontested costs. However, as GE is owed an overall credit of $60,732 for the 1½ Mile Cost Share, the amount due for undisputed costs can simply be subtracted from that credit.

[3] For this description, EPA "approval" also contemplates that EPA may conditionally approve a GE submittal or disapprove such a submittal and require a revision of it (or else modify the submittal itself).

- EPA's issuance of a Statement of Basis and a draft modification to the Permit with a proposed remedy for the Rest of River;
- Public comment period on the proposed remedy; and
- EPA's issuance of a final Permit modification to select the Rest of River remedy.

Thus, at each step in the process where GE is responsible for developing the submission, GE submits the deliverable and then EPA conducts its review, followed by EPA's approval, conditional approval, or disapproval. If GE does not agree with EPA's decision on any deliverable, the Permit and the CD allow GE to seek administrative dispute resolution of that decision (Permit SC II.J; CD ¶ 141).

Here, in accordance with the Permit and the CD, GE submitted an initial CMS Report on March 21, 2008. EPA reviewed that report and directed GE to undertake additional work and to submit a revised report. GE implemented the additional work, performed additional analyses, made a number of interim CMS submittals required by EPA,[4] and finally submitted a Revised CMS Report to EPA on October 11, 2010. As noted above, EPA has not to date approved, conditionally approved, or disapproved the Revised CMS Report.

Accordingly, EPA's Rest of River-related activities covered by the FY 2011 Cost Bill consist of work undertaken *after* GE's submission of the Revised CMS Report and *before* any EPA decision to approve, conditionally approve, or disapprove that report. These activities included, among other tasks: (a) review and internal discussion of GE's Revised CMS Report; (b) evaluation of alternatives in Revised CMS Report, including supplemental modeling and technical analysis; (c) evaluation of other remedial alternatives; (d) preparation of public outreach materials and discussion with the public about potential alternatives for the Rest of River remedy (including the April 2011 workshops and May 2011 Charrette); and (e) review of the Revised CMS Report and other remedial options by EPA's CSTAG and NRRB.

EPA stated frequently during FY 2011 that it was continuing to evaluate the Revised CMS Report, study all alternatives, and consider public input, and that it had made no decision regarding the revised CMS Report or any remedial alternatives. See, e.g., Transcript of Statements of EPA Personnel at April 7, 2011 Workshop (Transcript) (attached hereto as Exhibit B)[5] at pp. 4, 5 (Bob Cianciarulo – the "process that we're, that we have been under way with now [is] the Corrective Measures Study, the CMS…. That document will feed into, really the next major process that we are leading up to here, which is when EPA comes out and proposes a clean-up plan for public comment. So we haven't made any determination on what we think the appropriate course of action is. . . . [The] clean-up alternatives [are] all still on the table, all still being evaluated."); p. 11 (Susan Svirsky – "we are in our decision making process. No decision as to what alternative is the appropriate alternative … has yet been made"); p. 16 (Susan Svirsky

[4] Those interim CMS submittals included a *Response to EPA's Interim Comments on CMS Report* (March 2009) and a *Supplement to Response to EPA's Interim Comments on CMS Report: Evaluation of Example Areas* (February 2010). EPA provided no approval, conditional approval, or disapproval of those submittals.

[5] The attached Transcript consists of a transcription of the remarks of EPA Regional Administrator Curtis Spalding, Section Chief Bob Cianciarulo, and Rest of River Project Manager Susan Svirsky at the April 7, 2011 EPA Workshop, from the videotape of that workshop on EPA's Housatonic River website.

– "We're evaluating GE's… alternatives and their detailed analysis and we're performing our own and we may come up with something that's different or that's a permutation or maybe it would be one of them or maybe it would be none of them or maybe it would be no remediation but we are in that process and the door is not closed ….").

C. Standard of Review

This dispute is governed by Paragraph 137 of the CD, which provides that, for "disputes that neither pertain to the selection or adequacy of any response action nor are otherwise accorded review on the administrative record under applicable principles of administrative law," judicial review "shall be governed by applicable principles of law." Further, the standard of review should this matter be presented to the Court is de novo review. As outlined in this Notice, the dispute centers on the meaning of the Consent Decree entered by the Court, which is interpreted as a contract. The "analysis of [a consent decree's] language and an application of the principles of contract interpretation ... is a matter of law and reviewable de novo." *United States v. Gila Valley Irrigation Dist.*, 961 F.2d 1432, 1434 (9th Cir. 1992) (quoting *Kern Oil & Refining Co. v. Tenneco Oil Co.*, 840 F.2d 730, 736 (9th Cir. 1988)).[6] Accordingly, in resolving a dispute over the meaning of a consent decree, this Court must likewise engage in de novo review, without deference to either party to the contract.

ARGUMENT

I. Activities in FY 2011 That EPA Included in U.S. Future Response Costs in Fact Fall Within U.S. Oversight Costs or U.S. Future Rest of River Capped Response Costs.

A. EPA Costs of Reviewing, Evaluating, and Studying GE's Revised CMS Report and Various Remedial Alternatives Fall Under U.S. Oversight Costs (Paragraph 98).

The CD defines U.S. Oversight Costs (for Rest of River) to include the costs of

> "reviewing proposals, reports, studies and other deliverables submitted by [GE] under the Reissued RCRA Permit, conducting shadow or supplemental studies for the studies to be conducted by [GE] under that Permit, and otherwise overseeing [GE's] activities under that Permit, all prior to the modification of that Permit to select the Rest of the River Remedial Action pursuant to Paragraph 22 of this Consent Decree." (CD ¶ 4)

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[6] *Accord*: *Quinn v. City of Boston*, 325 F.3d 18, 30 (1st Cir. 2003) (citing *Navarro-Avala v. Hernandez-Colon*, 951 F.2d 1235, 1339 (1st Cir. 1991); *Segar v. Mukasey*, 508 F.3d 16, 21-22 (D.C. Cir. 2007); *Nehmer v. U.S. Dep't of Veterans Affairs*, 494 F.3d 846, 855 (9th Cir. 2007); *Holland v. New Jersey Dep't of Corrections*, 246 F.3d 267, 277-78 (3d Cir. 2001); *Sault Ste. Marie Tribe of Chippewa Indians v. Engler*, 146 F.3d 367, 371 (6th Cir. 1998); *EEOC v. New York Times Co.*, 196 F.3d 72, 78 (2d Cir. 1999); *Alliance to End Repression v. City of Chicago*, 119 F.3d 472, 474 (7th Cir. 1997).

Thus, for the Rest of River, U.S. Oversight Costs include costs incurred prior to the Permit modification in (i) reviewing GE's deliverables under the RCRA Permit and (ii) conducting studies that shadow or supplement GE's studies under the Permit. This includes "all costs" that meet this definition, "including, but not limited to, direct and indirect costs, that EPA Incurs" (*id*.) Further, to illustrate the broad range of costs contemplated, the CD specifies that this category of costs "shall include, but not be limited to, payroll costs, contractor costs, travel costs, laboratory costs, community relations costs, technical support costs, interagency and intergovernmental agreement costs (including ATSDR and U.S. Army Corps of Engineers costs), costs of maintaining a Field Office, data management costs, and modeling costs" (*id*.).

Applying this definition to the work covered by EPA's FY 2011 Cost Bill, it is plain that much of EPA's work is covered by this category. Since the Revised CMS Report is a deliverable under the RCRA Permit, EPA's activities in reviewing it fall squarely within U.S. Oversight Costs. Further, since the CMS (which evaluates remedial alternatives) is one of GE's required studies under the Permit, any evaluation of remedial alternatives by EPA (even of alternatives other than those discussed in the Revised CMS Report) constitutes a shadow or supplemental study for the evaluation that GE conducted in the CMS. In fact, EPA cannot seriously dispute that it has been conducting its own "shadow or supplemental" CMS analyses. EPA has explicitly stated as such in describing its work to the public. See Transcript at p. 16 (Susan Svirsky – "We're evaluating GE's… alternatives and their detailed analysis and *we're performing our own*"; emphasis added). The costs of such supplemental or shadow evaluations are explicitly covered by the definition of U.S. Oversight Costs. Indeed, the FY 2011 Cost Bill and the documents provided to date all support the conclusion that EPA has charged costs that were in one way or another part of EPA's "own" shadow CMS process.

The fact that EPA's FY 2011 activities fell under the step of evaluating the CMS and other remedial alternatives prior issuing a decision on the Revised CMS Report and then developing a preferred alternative is further supported by other EPA statements. EPA's Project Manager, Susan Svirsky, detailed EPA's interpretation of the Rest of River process under the CD and Permit in a 2008 presentation entitled "GE/Housatonic River Site Rest of River Corrective Measures Study" ("Svirsky 2008 CMS Presentation"), a copy of which is attached as Exhibit C. According to Ms. Svirsky, the sequencing of the "Process Following GE Submittal of the CMS" is as follows:

- EPA evaluates CMS and GE's recommended alternative, considering:
  - Evaluation criteria
  - Input received from public
- EPA may approve, conditionally approve, or disapprove the CMS.
- EPA develops preferred alternative for public comment.

Other statements by EPA confirm this straightforward understanding. As EPA explained last spring, the process that EPA has "been under way with now [is] the Corrective Measures Study, the CMS," and EPA is continuing to evaluate all alternatives and to consider public input on

them and has not "made any determination on what we think the appropriate course of action." Transcript at p. 4 (Cianciarulo). See also other EPA statements at April 2011 workshop, quoted above.

Hence, under the above-described sequential process specified by the CD and Permit, it is clear that EPA's Rest of River activities in FY 2011 fell between the steps of submission of the CMS Report and EPA's approval, conditional approval, or disapproval of that report. They consisted of reviewing the Revised CMS Report submitted by GE, gathering information from the public regarding the alternatives described in that report, and conducting supplemental studies for GE's CMS studies – all prior to EPA's approval, conditional approval, or disapproval of the Revised CMS Report (and any subsequent dispute resolution on that decision) and EPA's proposal of a modification to the Permit to select a remedy. As such, those activities fall within the definition of U.S. Oversight Costs. See also Section II below.[7]

In short, based on the CD, the RCRA Permit, and EPA's own statements, until EPA completes its review and acts on the Revised CMS Report submitted by GE, EPA's efforts are necessarily for the purpose of finalizing EPA's review and evaluation of the remedial alternatives. That effort, and all associated costs, are U.S. Oversight Costs under the CD.

B. In the Alternative, EPA's Costs of Studying or Otherwise Continuing Its Investigations of the Rest of River Fall under U.S. Future Rest of River Capped Response Costs (Paragraph 96).

In the alternative, if EPA's costs included in the FY 2011 Cost Bill are not U.S. Oversight Costs, some or all of the costs of these ongoing analyses are more properly allocated to Paragraph 96 – U.S. Future Rest of River Capped Response Costs. U.S. Future Rest of River Capped Response Costs are broadly defined to include all costs incurred by EPA prior to the Permit modification "in connection with studying or otherwise investigating the Rest of River and/or field work to support the preparation, development, and selection of the Rest of River Remedial Action" (CD ¶ 4). This category specifically includes a number of non-field work activities, including "modeling," "preparation of reports," "peer input," "peer review," "general contractor costs (including, for example, administrative record development, project administration, project management," and other desktop activities. As discussed further in Section II, to the extent that EPA's activities in FY 2011 do not constitute U.S. Oversight Costs, they include studies and investigations of the Rest of River and internal peer review and thus fall within the definition of U.S. Future Capped Rest of River Response Costs.

[7] This is not to suggest an unduly formal process. As part of EPA's review of the CMS, EPA of course has the flexibility to conduct "shadow or supplemental studies," gather additional information, and engage with stakeholders to consider their views while it evaluates the proposed alternatives analysis in the CMS using the criteria specified by the RCRA Permit. However, if EPA chooses to conduct this kind of supplemental fact-finding, the CD clearly provides that the costs associated with such efforts must be allocated to U.S. Oversight Costs.

II. Costs That EPA Allocated to U.S. Future Response Costs Should Be Allocated to U.S. Oversight Costs or U.S. Future Rest of River Capped Response Costs.

Review of the specific types of costs included in EPA's FY 2011 Cost Bill shows that EPA has improperly charged costs to U.S. Future Response Costs that should be allocated to one or the other of the categories discussed above – i.e., U.S. Oversight Costs (CD ¶ 98) or U.S. Future Rest of River Capped Response Costs (CD ¶ 96). A summary of this review is presented in this section. More details are provided in GE's February 29, 2012 letter to EPA, which is attached as Exhibit A.

A. Regional Payroll and Travel

GE is challenging the Regional payroll and travel charges in the FY 2011 Cost Bill. Although those charges are not segregated by description, review of the public record, the contractor documents, and the explanation that EPA has provided in informal discussions to date about the FY 2011 Cost Bill reveals that much of the work of the EPA employees that EPA has placed in U.S. Future Response Costs is more properly allocated to another category. Specifically:

1. Review by the NRRB. The costs associated with the NRRB review relate to EPA's review of the Revised CMS Report and the alternatives evaluated therein (which are U.S. Oversight Costs) or "peer review" of EPA's own supplemental study of alternatives (which are U.S. Future Rest of River Capped Response Costs). Indeed, Ms. Svirsky's March 2, 2011 presentation to the CCC encouraged stakeholders to "submit written comments … ***on the RCMS [Revised CMS] for [N]RRB consideration***." Update on the Corrective Measures Study Process (Svirsky 2011 CMS Update) (copy attached as Exhibit D) at p. 6 (emphasis added). Moreover, EPA official Cianciarulo stated at EPA's April 2011 workshop that NRRB review is EPA's "internal peer review process," which must precede EPA's selection of a preferred alternative (Transcript at p. 8). Thus, the work relating to the NRRB review should not be charged to U.S. Future Response Costs.[8]

2. Review by the CSTAG. Similarly, the costs associated with the review of alternatives by the CSTAG likewise fall within either U.S. Oversight Costs (as review of the CMS or other alternatives) or U.S. Future Rest of River Capped Response Costs (as "peer review" of EPA's own supplemental study of alternatives). The purpose of CSTAG is to "provide advice regarding a small number of large, complex, or controversial contaminated sediment Superfund sites." OSWER Directive 9285.6-08, Principles for Managing Contaminated Sediment Risks at Hazardous Waste Sites (Feb. 12, 2002). CSTAG has several members, from EPA regions, the Army Corps, and EPA headquarters who participate in each review. The process includes review of written materials provided by regional staff before the meeting(s), presentations at the meetings by EPA regional staff, follow-up discussions, written recommendations to the Region

[8] As shown in Exhibit A, the costs of this work include the costs for EPA employees whose sole involvement with the Site was in connection with the NRRB process, as well as costs for other EPA Region I staff who spent at least some of their time in FY 2011 in preparing for the NRRB review.

by CSTAG, and responses by the Region to the recommendations. Moreover, this process is to be coordinated with the NRRB review. *Id.*

Based on public information on EPA's website, as early as 2009, the CSTAG was evaluating aspects of GE's initial CMS Report.[9] Any additional review in FY 2011 would have focused on the updated alternatives in the Revised CMS Report or developed by EPA staff. Moreover, consistent with its guidance, EPA coordinated the NRRB and CSTAG reviews, as noted in the Svirsky 2011 CMS Update. Thus, the payroll time and travel associated with CSTAG do not constitute U.S. Future Response Costs.[10] They are more properly allocated either to U.S. Oversight Costs or to U.S. Future Rest of River Capped Response Costs.

3. Other time and travel by EPA Regional staff. It appears that the bulk of EPA Region I personnel time and travel that EPA has chosen to assign to U.S. Future Response Costs was related to reviewing the Revised CMS Report, gathering public input on the alternatives described in that report, conducting shadow or supplemental studies for GE's CMS, and providing support for NRRB and CSTAG reviews. As discussed above, these costs should be allocated to U.S. Oversight Costs or U.S. Future Rest of River Capped Response Costs.

B. Headquarters Payroll and Travel

The time and travel costs associated with EPA headquarters officials all appear to have been incurred in connection with the NRRB and CSTAG reviews done by EPA. As shown above, those costs are U.S. Oversight Costs or U.S. Future Rest of River Capped Response Costs, not U.S. Future Response Costs.

C. EPA Contractor Costs for Public Outreach Efforts

The FY 2011 Cost Bill includes a charge for work done by Systems Research and Applications Corp. (SRAC). This charge is divided into two "delivery orders." One (SRAC Delivery Order #92) is discussed here. The other (SRAC Delivery Order # 3) is discussed in Section IV below.

As discussed in Exhibit A, Delivery Order #92 costs (approximately $145,000) were incurred to "conduct outreach interviews and Situation Assessment" and to "assist in planning for workshops and Charrette." These activities were clearly part of EPA's ongoing evaluation of the remedial alternatives in the Revised CMS Report and/or "supplemental or shadow" studies involving EPA's evaluation of those and other remedial alternatives. EPA specifically understood that its evaluation of the CMS would include consideration of public input, as shown by the Svirsky 2008 CMS Presentation (quoted above). Hiring consultants to seek out and obtain

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[9] *See* EPA Memorandum, S. Ells to S. Svirsky, CSTAG Updated Recommendations on the Housatonic Rest of River Contaminated Sediment Superfund Site (June 15, 2009) (referring to and making recommendations regarding the CMS, including suggesting that additional studies be undertaken). Available at http://www.epa.gov/superfund/health/conmedia/sediment/cstag_sites.htm

[10] Again, as shown in Exhibit A, these costs include the costs for EPA employees whose sole involvement with the Site was in connection with the CSTAG, as well as costs for EPA Region I staff who spent at least some of their time in FY 2011 in preparing for the CSTAG review.

input from members of the public before EPA issues a decision on the CMS Report – and before EPA proposes a remedy and asks for public comment – is inherently part of the process of evaluating alternatives and the Revised CMS Report. The Svirsky 2011 CMS Update states specifically (on p. 3) that "EPA is evaluating the alternatives in the R[evised] CMS considering: Input received from stakeholders." EPA further acknowledged that the workshops and the Charrette were conducted, in part, to provide "an opportunity for the public to interact with EPA regarding their views on the remedial alternatives … during EPA's decision-making process" (Svirsky 2011 CMS Update to the CCC, at p. 4). Thus, the costs of these activities clearly constitute "community relations costs" related to EPA's CMS evaluation activities, which are explicitly included in U.S. Oversight Costs.

D. Army Corps of Engineers Costs

Under this contract, EPA has billed GE more than $426,400 in direct costs plus $140,000 in indirect costs. As discussed in Exhibit A and summarized below, these are not U.S. Future Response Costs.

1. Public outreach, the workshops, and the Charrette. This category includes contractor charges to support interviews of stakeholders, the "Situation Assessment," the April 2011 workshops, and the May 2011 Charrette. As discussed above, these outreach efforts were part of EPA's ongoing evaluation of the remedial alternatives in the Revised CMS Report and/or "supplemental or shadow" studies involving EPA's evaluation of those and other remedial alternatives. Indeed, the workshops and Charrette were a central part of EPA's public outreach program as it evaluated the remedial alternatives. As such, for the same reasons given in Section II.C, these costs of EPA's public outreach process fall squarely within the gathering of public input and "community relations" covered by U.S. Oversight Costs.

2. NRRB and CSTAG review support. The contractors developed materials provided to the NRRB and CSTAG. As discussed in Sections II.A.1 and II.A.2, the costs associated with the NRRB and CSTAG processes are either U.S. Oversight Costs or U.S. Future Rest of River Capped Response Costs.

3. Fact sheet. The contractors helped EPA provide information to the public about the different remedial alternatives evaluated in the Revised CMS Report. The cost of the "fact sheets" are not U.S. Future Response Costs. Rather, for the reasons outlined above, the costs of public outreach and education while EPA is evaluating the CMS are "community relations" costs that are part of U.S. Oversight Costs.[11]

4. Supplemental modeling and technical analysis. The FY 2011 Cost Bill documents that, through the Army Corps, EPA paid contractors to conduct additional modeling and analysis as part of its evaluation of remedial alternatives. One contractor provided support for developing revised modeling boundary conditions; and several contractors provided support for estimating

[11] Alternatively, while EPA may choose to educate the public generally about PCBs, such general education is not included within the scope of EPA's Rest of River study and remedy selection work in the CD. As such, these costs are not incurred "pursuant to provisions of this Consent Decree" and hence are not recoverable.

floodplain removal volumes and areal extent of removal for floodplain alternatives. These analyses either are "shadow or supplemental" studies covered by U.S. Oversight Costs (¶ 98) or constitute "studying or investigating the Rest of River … to support the preparation, development, and selection of the Rest of River Remedial Action" under ¶ 96 (U.S. Future Response Costs) which specifically contemplates covering EPA "modeling" work.[12]

5. General technical support. The technical support charges included in this contract (described in Exhibit A) were to support the activities listed above. As such, these are the kinds of costs the Decree covered by U.S. Oversight Costs, which expressly include all "contractor costs" and "technical support costs" (CD ¶ 4).[13]

III. To the Extent That EPA's Costs Were Incurred for Developing a Remedy Proposal, They Are Not Recoverable Because They Were Outside the Prescribed Process and Thus Not Incurred Pursuant to the Consent Decree.

We have shown in Sections I and II that, based on the sequential nature of the Rest of River process and EPA's own statements during FY 2011, many of the activities covered by the FY 2011 Cost Bill were part of EPA's evaluation of the Revised CMS Report and/or "supplemental or shadow" studies to the CMS and/or pre-decisional studies or investigations of the Rest of River, since they occurred prior to any EPA action on the Revised CMS Report and, by EPA's own statements, prior to making any decision on a proposed remedy. However, to the extent that EPA's costs in that bill were incurred, instead, for developing a Rest of River remedy proposal or preparing documents that set out that proposal, they are not recoverable because they are outside the definition of U.S. Future Response Costs.

U.S. Future Response Costs include EPA and DOJ costs that do not fall within any capped category and specifically include "costs incurred for preparing, reviewing, and approving the documents that propose and select the Rest of River Remedial Action" (CD ¶ 4). However, that definition provides explicitly that U.S. Future Response Costs are costs incurred by EPA or DOJ "pursuant to the provisions of this Consent Decree" (CD ¶ 4). Any EPA costs incurred for developing or documenting a remedy proposal (rather than for evaluating alternatives) prior to issuing a decision on the Revised CMS Report would be outside the process prescribed by the CD and would violate GE's procedural rights under the CD, as well as the Due Process Clause, and thus would not be incurred pursuant to the CD. The same is true of any DOJ costs included in the FY 2011 Cost Bill that were incurred for the same purposes.

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[12] Alternatively, to the extent that this modeling was done to support a preferred or proposed alternative, it is not recoverable for the reasons given in Section III below.

[13] In addition, the Army Corps incurred costs for its own labor, travel, and project management in the course of performing work under the interagency agreement on EPA's behalf. The costs of work that the Army Corps has done in managing and overseeing contractors retained to do work that is otherwise covered by U.S. Oversight Costs is likewise covered by U.S. Oversight Costs. See CD ¶ 4 ("U.S. Oversight Costs shall include… interagency and intergovernmental agreement costs (including … U.S. Army Corps of Engineers costs").

A. The CD, Permit, and EPA Guidance Demonstrate That Costs Incurred for Developing a Remedy Proposal Prior to Approval of the CMS Report Are Inconsistent with the Required CD and Permit Process.

To the extent that EPA and DOJ incurred costs in FY 2011 in developing its preferred alternative or a remedy proposal or preparing documents that describe and support that proposal, they are not recoverable because they were incurred too early in the process – i.e., before EPA has completed its evaluation of the CMS. As discussed above, the Permit and the CD set out a sequential process. That process directs EPA to complete its review of the CMS Report and issue an approval or conditional approval of that document – or, if disapproved, obtain and approve (or issue) a modified CMS Report – before developing a proposed remedy. The CD specifically provides that EPA will propose a remedy only "***upon satisfactory completion of the CMS Report***" (CD ¶ 22.n; emphasis added).

The CMS Report is the study that presents and evaluates alternatives and thus serves as the foundation for selection of a remedy. GE is charged with developing that report, while EPA is responsible for ensuring the final CMS Report includes alternatives from which EPA can prepare the draft Statement of Basis for its preferred remedy. By requiring EPA to complete a review of the CMS before selecting a remedy, the sequential process ensures that EPA has an approved (or conditionally approved) CMS Report in front of it as it proceeds with the next phase (remedy selection). It would be illogical to do it any other way. This approach is wholly consistent with EPA's prior statements describing the process it was actually following. See Svirsky 2008 CMS Presentation (first EPA would review and approve CMS Report, then "EPA develops preferred alternative for public comment"); Transcript at p. 4 (Cianciarulo – "[The CMS] document will feed into, really the next major process that we are leading up to here, which is when EPA comes out and proposes a clean-up plan for public comment").

Moreover, the sequential process is contemplated by the Permit. The Permit (in SC II.H) specifies the "Corrective Measures Study Report Approval" as follows:

> "After the Permittee submits the CMS Report, EPA will either approve, conditionally approve or disapprove the Report. . . . If EPA disapproves the Report, EPA shall, within its discretion, either (1) specify the deficiencies and establish a time frame within which the Permittee shall submit a modified Report; or (2) make such modifications as EPA deems necessary . . . ."

Plainly, the Permit provides that if EPA concludes that changes to the CMS Report are necessary, they would be done by GE – or potentially by EPA if it disapproves the CMS Report. Jumping ahead to work on the selection of a remedy without taking action on the Revised CMS Report would ignore this process

Further, sequencing the deliverables and EPA's review matches the scope of the different cost categories in the CD. U.S. Oversight Costs address costs incurred in overseeing the development of the CMS and conducting EPA's own CMS-like evaluations, costs that necessarily would be incurred "prior to the modification of the Reissued RCRA Permit" (CD ¶

4). In contrast, "U.S. Rest of River Oversight Costs" are designed to address the EPA costs that will be incurred "after the modification" of the Permit "to select the Rest of River Remedial Action (*id.*). Only a narrow window was left open for the process of developing a proposed remedy, drafting the Statement of Basis, and responding to public comment.

This framework also squares with EPA direction and statements in guidance implementing the RCRA corrective action program. For example, EPA's *RCRA Training Module Session 20, RCRA Corrective Action: Corrective Measures Study/Corrective Measures Implementation*[14] outlines a process in which EPA evaluates the CMS report, outlines deficiencies, "approve[s] revised CMS," and ***then*** issues "draft permit modification language incorporating proposed remedy."

This sequencing is also analogous to remedy-selection sequence under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). EPA CERCLA guidance states clearly: "If a PRP prepares the RI/FS, then the Proposed Plan should be drafted by the lead agency ***after the lead agency approves the RI/FS***." *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Documents* (1999) at p. 2-1 (emphasis added). By analogy, where the RCRA permittee prepares the CMS, the proposed permit modification decision to select a remedy should be drafted by EPA only ***after*** EPA approves the CMS Report.

In this case, EPA has not completed its review of the Revised CMS Report or issued any approval, conditional approval, or disapproval of that report. Thus, EPA does not have a completed CMS Report from which it can fully weigh the alternative remedial approaches. In fact, as discussed above, EPA stated repeatedly during FY 2011 that it had not completed its review, and that all alternatives were still under evaluation. In these circumstances, developing a proposed remedy before completing its review of the Revised CMS Report and before the CMS Report is finalized would represent a pre-judgment that conflicts with the sequencing of deliverables and review in the CD and the Permit.

B. Developing a Remedy Proposal Before Acting on the CMS Report and Charging GE with Those Costs Would Conflict with GE's Right to Review of EPA's Decision on the CMS Report Under the CD and as a Matter of Due Process.

The sequential process described above is also necessary to protect GE's right to dispute resolution under the CD and the Due Process Clause ***before*** EPA spends money (and charges GE) for developing its own preferred alternative or a proposed remedy. For EPA to take the latter steps before the prescribed CMS process is completed would represent an improper end run around the procedural protections that GE bargained for in the CD and the Permit and that are also required by due process. As such, any costs that EPA incurred in doing so are not properly incurred under the CD and cannot be recovered.

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[14] Available at http://www.epa.gov/osw/hazard/correctiveaction/curriculum/download/cms-cmi.pdf.

The sequential process embodied in the CD and Permit is essential to protect GE's rights to meaningful dispute resolution on EPA's decision on the CMS Report. The CD and Permit require GE to prepare the CMS Report and EPA to approve, conditionally approve or disapprove it. If EPA conditionally approves, disapproves, or modifies the CMS Report, GE has the right to pursue dispute resolution in accordance with the terms in the CD and Permit. Paragraph 141.a of the CD and Special Condition II.N of the Permit grant GE the right to seek administrative dispute resolution on any disputes relating to EPA's conditional approval, disapproval, or modification of deliverables submitted by GE to EPA under the Permit prior to EPA's issuance of the permit modification selecting a Remedial Action for the Rest of River. If such dispute resolution were invoked on EPA's decision regarding the CMS Report, it would result, at the conclusion of the dispute resolution process, in either a final CMS Report or a clear direction for the CMS Report, which EPA would then have in front of it in developing a remedy proposal.

As noted above, EPA stated publicly during FY 2011 that it had made no decision on the Rest of River remedy. But if it had, it would have jumped the gun by developing a proposed remedy before issuing a decision on the Revised CMS Report and giving GE the opportunity to seek administrative dispute resolution. That would be contrary to the agreed-upon terms of the CD and the Permit, because, before EPA could move on to the next step – and spend money and unilaterally charge GE for those costs – GE had the right to be heard to defend its alternatives evaluation in the Revised CMS Report. By not waiting, EPA would deprive GE of its rights under the CD and the Permit and would be acting outside the framework of the CD. Hence, any costs that EPA incurred in conducting such activities would not be incurred under the CD and are not recoverable from GE.

In addition, such actions by EPA would deprive GE of its due process rights. In the early 1990s, several cases were brought challenging EPA's ability to make decisions on interim submittals under RCRA corrective action permits (i.e., submittals prior to the permit modification to select corrective measures) without giving the permittee the right to challenge those decisions, which the petitioners argued was required by due process. See, e.g., *W.R. Grace & Co. –Conn. v. U.S. EPA*, 959 F.2d 360 (1st Cir. 1992) (recognizing those arguments, but holding that they were not yet ripe for review). Ultimately, in such a challenge by GE, EPA's Environmental Appeal Board held that decisions on such interim submittals did not constitute permit modifications subject to the full administrative and judicial review rights applicable to such modifications. *In The Matter of General Electric Company*, RCRA Appeal No. 91-7, 4 E.A.D 615 (April 13, 1993). At the same time, however, the Board held that, as a matter of due process, under established decisions such as *Mathews v. Eldridge*, 424 U.S. 319 (1976), EPA must provide the permittee with a hearing – "it must give GE the opportunity for a hearing" (4 E.A.D at 641). The Board further held that dispute resolution provisions such as those included in GE's current RCRA Permit (allowing an administrative appeal to Regional management but not judicial review) met the minimum standards of due process (*id*.) Again, in *In re Allied-Signal Inc.*, RCRA Appeal No. 92-20, 5 E.A.D. 291, 300 (May 16, 1994), the Board reiterated that while "immediate recourse to the courts is not required as a matter of due process in these circumstances," due process does require at least "an opportunity for an administrative hearing."

In the present case, under those decisions, GE has a due process right to have an administrative hearing on EPA's decision on the Revised CMS Report before EPA spends

money and charges GE for developing a remedy proposal. By conducting such actions prior to issuing a decision on the Revised CMS Report and then charging GE for the costs of doing so, EPA would deprive GE of its due process rights. This is no different from requiring GE to revise the CMS Report again to support EPA's preferred alternative without first allowing GE the required hearing. Any such costs incurred by EPA without following the required process would not be incurred pursuant to the CD and thus are not recoverable.[15]

IV. Other EPA Contractor Costs Should Have Been Allocated Among Various Cost Categories, Not All Charged to U.S. Future Response Costs.

EPA's FY 2011 Cost Bill also includes certain other EPA contractor costs that are not properly allocated to U.S. Future Response Costs for somewhat different reasons from those discussed above.

A. EPA Contractor Costs for Handling CCC Meetings

The FY 2011 Cost Bill includes a charge (approximately $20,000) for work done by SRAC under Delivery Order # 3. As discussed in Exhibit A, those costs were for CCC-related work. A review of the minutes prepared by EPA of the CCC meetings indicates that a wide variety of topics were covered at those meetings during the past fiscal year. A significant amount of CCC time was devoted to categories of work covered by U.S. Oversight Costs, including EPA's progress "evaluating the alternatives in the [Revised] CMS" (Summary of March 2, 2011 Meeting at 3), as well as the Removal Actions Outside the River (also covered by U.S. Oversight Costs). Accordingly, EPA should have divided up the time at the CCC meetings and allocated the efforts among the relevant cost categories. If that was not feasible, EPA should allocate the costs via a cross-cutting methodology (see CD ¶ 100.f), a process EPA followed in previous cost bills.

B. EPA Contractor Costs for Document Management

The FY 2011 Cost Bill also includes costs under an EPA contract with ASRC Management Services, Inc. (EPW05052) ($50,500 in direct costs plus $16,600 in indirect costs) for "records management." Those costs are likewise not properly allocated to U.S. Future Response Costs.

For one thing, the progress reports describe record management tasks that were not incurred under the CD. The progress reports include charges for ASRC to "convert GE 104E Zybase images to SDMS." GE received and submitted its responses to EPA's CERCLA 104(e) request over a decade ago. Nothing in the CD directs or authorizes EPA to incur these costs and hence it should not be charged as a U.S. Future Response Cost which is limited to costs that EPA incurs pursuant to the CD.

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[15] For the same reasons, this conclusion also applies to any DOJ costs incurred in developing, reviewing, or discussing documents that support EPA's preferred alternative.

Other document management work specifically arises under defined cost categories. The progress reports state: "Convert 1999 Admin. Record for Removal Actions Outside the River from tiff to PDF CD-ROM" (e.g., Invoice Numbers 42, 44). Some invoices also indicate that the contractor performed "index QA review" for documents that had been indexed in the past "for the *GE Oversight* site" (Invoice Numbers 34-38, 40-41, 44; emphasis added). The management of documents associated with these oversight activities should be charged to U.S. Oversight Costs as that is the category associated with EPA's oversight of the Removal Actions Outside the River.

The remaining entries in the progress reports do not state for which aspect of the Site work the documents were being indexed or maintained. For example, the reports generally state that the work included "records, information, and project management support for the GE-Housatonic River site," as well as the time to "process, organize, and file records and collections," to "provide reference on collections…" Moreover, even where there are specific entries, they do not document which aspect of the Site work the contractor is supporting, as shown by the examples listed in Section II.F of the letter attached as Exhibit A.

EPA should be requiring its contractor to allocate its costs to the appropriate category that the document management is supporting. If, given the nature of the work, EPA's contractor cannot reasonably assign a cost to a specific category of work, then that is precisely the type of work "incurred in support of tasks included in more than one cost category" (CD ¶ 100f) and should be allocated to the Site as a whole by way of the "cross cutting" methodology that EPA already has in place.

EXHIBIT A

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FOUNDED 1866

February 29, 2012

By E-Mail

Timothy M. Conway, Esq.
Senior Enforcement Counsel
U.S. Environmental Protection Agency
New England Region
One Congress Street
Boston MA 02114-2023

Re: Pittsfield/Housatonic Decree – EPA FY 2011 Cost Bill

Dear Tim:

I write for General Electric Company ("GE") in response to the documentation we have received to date in support of EPA's bill for reimbursement of costs incurred in FY 2011 that EPA claims fall under Paragraph 95 ("U.S. Future Response Costs") of the Pittsfield/Housatonic Consent Decree ("Decree) regarding the Pittsfield Housatonic River Site ("Site").[1] Based on our initial review, we note the following concerns regarding the costs EPA has allocated to Paragraph 95 of the Decree:

I. Substantial charges are improperly allocated to Paragraph 95

As general matter, we question whether substantial charges in the FY 2011 Bill have been improperly allocated to paragraph 95 and should have been allocated to "U.S. Oversight Costs" (paragraph 98) or "U.S. Future Rest of River Capped Response Costs" (paragraph 96).

A. The costs associated with evaluating the revised GE CMS report, including additional EPA studies and investigations, should be re-allocated to U.S. Oversight Costs (Paragraph 98)

Foremost, the FY 2011 Bill would appear to include significant EPA costs that are part of EPA's oversight responsibilities, including EPA's review of GE's proposed CMS report prepared as directed under the Decree and the Reissued RCRA Corrective Action Permit. ("RCRA Permit"). Such costs would fall squarely under the category of "US Oversight Costs," as those include the costs of

[1] GE received the remainder of EPA's documentation on January 25, 2012. As noted by my email of February 3, we believe that documentation was incomplete.

> reviewing proposals, reports, studies and other deliverables submitted by Settling Defendant under the Reissued RCRA Permit, conducting shadow or supplemental studies for the studies to be conducted by Settling Defendant under that Permit, and otherwise overseeing Settling Defendant's activities under that Permit, all prior to the modification of that Permit to select the Rest of the River Remedial Action pursuant to Paragraph 22 of this Consent Decree.

Decree ¶4 (definition of "US Oversight Costs").

The RCRA Permit lays out a sequential framework for the RFI/CMS process. At each step in the process listed here, including the CMS report, GE submits the deliverables that are then followed by EPA review and approval, conditional approval or disapproval. Specifically:

- RCRA Facility Investigation (RFI): GE conducts the RFI and prepares the RFI Report, and EPA reviews and approves the RFI Report. RCRA Permit at Part II.B.
- Interim Media Protection Goals (IMPG): Likewise, GE proposes the IMPG for EPA review and approval. RCRA Permit at Part II.D.
- Corrective Measures Study proposal: Similarly GE submits a CMS proposal, and EPA's role is to "approve, conditionally approve or disapprove." RCRA Permit at Part II. F.
- Corrective Measures Study: Under the Permit, GE implements the CMS and then prepares the CMS report – which "EPA will either approve, conditionally approve or disapprove . . . ." Permit at Part II. H.

After the CMS report is finalized, EPA may propose the modification of the permit to select corrective measures. Permit at Part II. J. This sequencing of deliverables followed by EPA review and approval "in accordance with the Reissued RCRA Permit," *see* Decree ¶22, must be followed before EPA may proceed to prepare the Statement of Basis and modify the RCRA Permit to include a final remedy.

The Decree is equally clear on this overall framework. Paragraph 22 of the Decree states that EPA will approve the RFI Report (¶ 22(f)), Interim Media Protection Goals (¶ 22(j)) and the CMS Proposal (¶ 22(k)) prepared by GE. Then, the Decree directs GE to submit the CMS report and only "upon satisfactory completion of the CMS Report in accordance with the Reissued RCRA Permit," may EPA propose a remedy that will eventually be formalized by modifying the RCRA Permit. Decree ¶22(n). In fact, the Decree mandates that these procedures "shall" be followed: "Additional studies of the Rest of River and the selection for a Remedial Action for the Rest of River *shall be conducted in accordance with the Reissued RCRA Permit*" and the procedures in paragraph 22. *See* Decree ¶22 (emphasis added).

This is not to suggest an unduly formal process. To the contrary, as part of EPA's review of the CMS, EPA of course has the flexibility to gather additional information and engage with stakeholders to consider their views while it evaluates the alternatives in the proposed CMS

using the criteria specified by the RCRA Permit. However, if EPA chooses to conduct this kind of supplemental fact-finding, the Decree clearly provides that the costs associated with such efforts must be allocated to U.S. Oversight Costs.

EPA's Project Manager, Susan Svirsky, has confirmed this sequential approach in her presentation "GE/Housatonic River Site Rest of River Corrective Measures Study."[2] According to Ms. Svirsky, the "Process Following GE Submittal of the CMS," is as follows:

- EPA evaluates CMS and GE's recommended alternative, considering:
  - Evaluation criteria
  - Input received from public
- EPA may approve, conditionally approve, or disapprove the CMS.
- EPA develops preferred alternative for public comment.

Id. This process makes sense. GE is charged with evaluating alternatives in the CMS report, while EPA is responsible for ensuring the final CMS report includes alternatives from which EPA can prepare the draft Statement of Basis for its preferred remedy. This framework also squares with EPA direction and statements in guidance implementing the RCRA corrective action program. *E.g., EPA RCRA Training Module #20, RCRA Corrective Action: Corrective Measures Study/Corrective Measures Implementation* (outlining process whereby EPA evaluates CMS report, outlines deficiencies, "approve[s] revised CMS" and then issues "draft permit modification language incorporating proposed remedy").

Moreover, sequencing the deliverables and EPA's review matches the scope of the different cost categories in the Decree. U.S. Oversight Costs addresses costs incurred overseeing the development of the CMS, costs that necessarily would be incurred "prior to the modification of the Reissued RCRA Permit..." Decree ¶4. In contrast, "U.S. Rest of River Oversight Costs" are designed to address the EPA costs that will be incurred "after the modification" of the Permit "to select the Rest of River Remedial Action. *Id.* Only a narrow window was left open for the process of drafting the Statement of Basis and responding to public comment, as EPA reasonably asserted that it could not estimate in advance the nature and extent of the comments it would receive.

Accordingly, as required by the RCRA Permit (and the Decree), GE provided a Corrective Measures Study to EPA on March 21, 2008 (ARCADIS and QEA, 2008. EPA reviewed the draft CMS report and returned it with comments directing GE to make changes to the report and undertake additional work. *See* EPA Comments on GE's March 2008 Corrective Measures Study Report, Letter from James T. Owens, III, EPA, to Andrew Silfer, GE, (September 9, 2008). GE implemented the additional work, performed additional analyses, provided various interim deliverables, and prepared and submitted a draft revised CMS report to

[2] Available at http://www.epa.gov/region1/ge/publiceventsandmeetings/283320.pdf

EPA. ARCADIS, Anchor QEA, and AECOM, Housatonic River Rest of River Revised Corrective Measures Study Report, Prepared for General Electric Company, Pittsfield, MA, (October 2010).

However, EPA has not yet "approved, conditionally approved, or disapproved" the Corrective Measures Study report. Instead, consistent with Ms. Svirsky's explanation of the "process following GE submittal of the CMS," EPA has been reviewing the CMS report, gathering additional information from the public, and conducting its own investigations and field work that can fairly be described as "supplemental studies for the studies to be conducted by [GE] under [the Reissued RCRA Permit..." Decree ¶4. As such, based on the Decree, the RCRA Permit, EPA's own statements and EPA guidance, until EPA completes its review and acts on the draft CMS Study proposed by GE, EPA's efforts are necessarily for the purpose of finalizing EPA's review of the alternatives in the CMS report.

Accordingly, all of the costs associated with the ongoing review – which we believe are the bulk of the costs demanded in the FY2011 Bill – should be allocated to U.S. Oversight Costs.

B. Alternatively, substantial portions of the FY 2011 Cost Bill should be allocated to U.S. Future Rest of River Capped Response Costs (Decree ¶96)

In the alternative, if not U.S. Oversight Costs, some or all of these ongoing analyses are more properly allocated to paragraph 96 - U.S. Future Rest of River Capped Response Costs. Paragraph 96 covers all costs incurred "in connection with" EPA's "studying or investigating the Rest of River ... to support the preparation, development, and selection of the Rest of River Remedial Action..." This includes any "peer input" and "peer review" to support that process. Decree ¶4 (U.S. Future Rest of River Capped Response Costs). As detailed more fully below, a number of the studies, investigations, and internal peer review that EPA has been conducting all would also appear to fall within this capped cost category.

II. Review of specific costs

A. Regional Payroll and Travel Costs

EPA has billed more than $290,000 in direct costs for regional payroll during FY 2011. There also was $29,500 in regional travel costs. These are substantially more than has been charged by regional staff in any previous bill. While we can make some assumptions, without further description, we cannot ascertain why 31 different employees charged 3759 hours and 19 different employees traveled for work chargeable to paragraph 95. Accordingly, we ask that EPA explain what type of employee time it allocated to paragraph 95, as opposed to U.S. Oversight Costs or one of the other capped categories. We note:

1. National Remedy Review Board related costs. Richard Campbell, Stanley Christensen, John Frisco, Carmella Grandinetti, Michael Jasinski, Peter Ludzia, Wayne Praskins, Timothy Prendiville, and Michael Sivak all charged time to the site during FY 2011. However,

to our knowledge, their involvement with the site was in connection with the National Remedy Review Board ("RRB" or "Board") process. Region 1 sought the peer input of the Board, whose purpose is to provide a further EPA review of certain more costly remedies under consideration. In this instance, we presume the Board was asked, in whole or in part, to review the remedial alternatives evaluated in the GE revised draft CMS report.[3] Indeed, Ms. Svirsky's March 2, 2011 presentation to the Citizens' Coordinating Council encouraged stakeholders to "submit written comments ... *on the [Revised] CMS* for RRB consideration..." EPA, Update On the Corrective Measures Study Process at 6 (March 2, 2011) (emphasis added). Moreover, the documents provided with the cost bill suggest that EPA contractors prepared materials for the Board's review that we would expect included references to stakeholder submissions, as well as summaries of aspects of GE's draft study to facilitate the Board's review. We reasonably presume those efforts to distill the record for the RRB were supported by EPA staff at headquarters and the region. That EPA review and evaluation of the GE draft CMS report should not be charged to paragraph 95. *See* discussion in I.A, *supra.*[4]

2. CSTAG related costs. Larry Brill, Allison Hiltner, Kimberly Keckler, Craig Smith, John Sturgeon, and Douglas Tomchuk (supported by others) also charged time to the site in FY 2011. To our knowledge, their involvement with the site was limited to the Contaminated Sediments Technical Advisory Group ("CSTAG") process. However, based on information on EPA's website, it was clear that at least as of 2009, the CSTAG process was evaluating aspects of the earlier GE draft CMS report. *See* EPA Memorandum, S. Ells to S. Svirsky, CSTAG Updated Recommendations on the Housatonic Rest of River Contaminated Sediment Superfund Site (June 15, 2009) (referring to and making recommendations regarding the CMS, including suggesting that additional studies be undertaken).[5] Moreover, the documents suggest that there was coordination between the RRB review process and the CSTAG review. If these costs are going to be charged under the Decree,[6] then all of the costs associated with reviewing the CMS report are more properly allocated either to U.S. Oversight Costs, or, in the alternative, to U.S. Future Rest of River Capped Response Costs.

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[3] If there was some other purpose to the National RRB process, we ask EPA to provide some explanation of the work conducted by the Board.

[4] The purpose of this review was, in whole or in part, to obtain peer input and peer review of the remedial alternatives being evaluated by GE in the draft CMS report. Thus, the RRB work would also fall within the definition of paragraph 96 costs, as it is work is associated with "studying or otherwise investigating ... the Rest of River ... to support the preparation, development, and selection of the Rest of River Remedial Action," which expressly includes "peer input" and "peer review" of that process. Decree ¶4 (U.S. Future Rest of River Capped Response Costs).

[5] Available at http://www.epa.gov/superfund/health/conmedia/sediment/cstag_sites.htm

[6] As outlined in previous correspondence, CSTAG costs should also not be charged to paragraph 95 because the costs are not incurred "pursuant to" a provision of the Decree. CSTAG is not mentioned in the Decree, was not formed until two years *after* the Court entered the Decree, and no provision of the Decree requires this additional review process. The Decree details the process for investigating, selecting and reviewing the Rest of River remedy, including a peer review process and other procedures. This additional process was not agreed upon by the parties.

3. EPA has allocated charges to paragraph 95 for your time ($68.7 K, 758 hours), Dean Tagliaferro ($53.8 K, 639.5 hours), Ms. Svirksy ($69.7 K, 1,056 hours), and Robert Cianciarulo ($32.4 K, 407 hours). We request that EPA provide some further understanding of the nature of the work done that EPA believes should be allocated to paragraph 95, as opposed to one of the capped categories. We presume, for example, that time charged includes support for the RRB and CSTAG reviews, as well as other time incurred reviewing GE's CMS report, conducting the public information gathering and community relations efforts, and working with contractors performing supplemental studies. *See* discussion *infra.*

4. EPA has charged $16,416 for Mr. James Murphy (227 hours of time), who is a "public affairs specialist." In addition to the actual time that EPA evaluates GE's CMS report, all community relations work associated with that still ongoing review process should be charged to U.S. Oversight Costs. Decree ¶4 ("U.S. Oversight Costs shall include ... community relations costs..."). Further, as discussed below, Mr. Murphy's time related to the CCC process should be allocated to cross-cutting or among the relevant categories of work.

5. While most of Ms. Howell's time is not being charged to this category any longer, we still question why any of this administrative time should be charged to paragraph 95, as opposed to one of the capped categories or to cross cutting costs. Likewise, David Dickerson is the project manager for Silver Lake and Unkamet Brook. Please explain why any of those charges would be covered by paragraph 95.

6. Regarding the travel charges, it is generally not clear why this travel is chargeable to paragraph 95 – *e.g.,* why and for what purpose did Susan Svirsky have 14 different trips costing more than $10,000. Also, the bill lists $3,800 under travel as charged to "Bank One." Please explain the nature of those charges. Further, James Owens, Danny Rodriguez, Daniel Wainberg, and Ernest Parfenu Waterman did not charge any time, only travel expenses. As such, please explain the work done by these regional employees and why EPA has allocated these costs to paragraph 95.

B. Headquarters' Payroll and Travel Costs

EPA has billed more than $29,600 in direct costs for headquarters payroll and $8200 in headquarters travel during FY 2011. We can make some assumptions, but would ask that EPA explain the nature of the headquarters time and expenses it has chosen to allocate to paragraph 95. We note:

1. We believe that Amy Lagare, Christina Skaar, Mark Sprenger, and Andre Zownir were involved in the RRB process and that Stephen Ells and Marc Greenberg were part of the CSTAG process. As noted, we submit that this work by EPA to review the alternatives evaluated in the CMS report should not be allocated to paragraph 95.

2. Regarding the travel charges, it is generally not clear why this travel is chargeable to paragraph 95 – *e.g.,* why and for what purpose did 8 employees made 11 different

trips costing more than $8,000. We request that EPA explain the purpose of their travel so GE may evaluate EPA's demand for reimbursement of those costs. Also, there are charges to "Bank One" here as well. Please explain those charges, as well as the nature of the work done by Ms. Lois Haas Gartner who charged travel expenses, but not any hours.

C. Systems Research and Applications Corp. – EPW09011

The bill includes a charge of approximately $166,000 for work done by Systems Research and Applications Corp. ("SRAC"). Approximately $20,800 is associated with the CCC meetings. The remaining $145,400 is related to outreach interviews, the "Situation Assessment," public workshops and charrette.

1. Delivery Order #3

Delivery Order #3 costs were for CCC-related work that are not appropriately allocated to paragraph 95. Rather, a review of the minutes prepared by EPA of the CCC meetings indicates that a wide variety of topics were covered at those meetings during the past fiscal year. *See* Draft Meeting Summary, EPA Housatonic River Citizens Coordinating Council (CCC) (March 2, 2011); Draft Meeting Summary, EPA Housatonic River Citizens Coordinating Council (CCC) (June 22, 2011); Draft Meeting Summary, EPA Housatonic River Citizens Coordinating Council (CCC) (Sept., 14, 2011). Specifically, the March 2011 meeting topics included:

- Additional Requests for Membership to the CCC
- Update on Dam Removal
- Update on Remediation Projects in Pittsfield
- Rest of River Status and Process Going Forward
- Proposed Consent Decree Modification for Silver Lake Bank Plantings
- Update on Documents in the Berkshire Athenaeum Public Repository
- Brattlebrook Park

Similarly, the June 2011 meeting topics included:

- Update on Membership
- Update on Remediation Projects in Pittsfield
- Update on Round 2 Restoration Plan: Sackett Brook Restoration Project
- General Updates and Issues from CCC Members
- Similarly, the June 2011 meeting topics included:

Likewise, the September 2011 meeting topics included:

- Update on Hurricane (Tropical Storm) Irene Impacts and the Project
- Dam Updates
- Update on Remediation Projects in Pittsfield

- Rest of River Process Going Forward
- Commonwealth's Housatonic 9/21 Public Forum
- General Updates and Issues from CCC Members
- Action Item Followup

Indeed, a review of the minutes indicates that a significant amount of CCC community relations time was devoted to categories of work covered by U.S. Oversight Costs, including work related to the Removal Actions, as well as EPA's progress "evaluating the alternatives in the [Revised] CMS ..." Summary of March 2, 2011 Meeting at 3. At the very least, this time was plainly incurred in support of more than one cost category and should therefore be allocated via the cross-cutting allocation. *See* Decree, ¶100(f). We observe that in previous bills EPA has assigned a portion of the SRAC contract costs to other cost categories. GE requests that EPA advise if it made any such allocation on this bill, but if none was made, why EPA believes none was appropriate in the FY 2011 Bill.

2. Delivery Order #92

According to the cost summary, the $145,000 in Delivery Order #92 costs were incurred to "conduct outreach interviews and Situation Assessment" and to "assist in planning for workshops and Charrette." Based on the backup documents that were provided, it appears that the bulk of the charges were associated with the outreach process:

- The ADR contractor interviewed and retained subcontractors (Shapiro, Poole, and Dozier) to conduct the interviews (Voucher 1 - $3200).
- The subcontractor then developed the interview plan (Voucher 2 - $40,000)
- The subcontractors then conducted interviews of "key stakeholders." (Voucher 3R - $26,400, Voucher 4R - $36,700, and Voucher 5 - $3500).
- The subcontractors prepared a report on the interviews. (Voucher 6 - $29,800).

Without a complete set of the documentation showing the work completed by these contractors, we question why EPA would assign these charges to paragraph 95. Accordingly, we request that EPA provide to GE the contractors' work plan and reports on the interviews.[7]

Nonetheless, based on the documentation that has been provided, we submit that these are "supplemental studies" being done during EPA's review of the revised CMS while it evaluates the remedial alternatives in the draft CMS report. As such, it necessarily falls under U.S. Oversight Costs. *See* discussion, *supra.* Moreover, as outlined, EPA contemplated that its evaluation of the CMS would include consideration of public input. Hiring consultants to seek out and obtain that input from members of the public before EPA issues a decision on the CMS report – or before EPA proposes a remedy and asks for public comment – is inherently part of

[7] Further, we observe that EPA's contractors have claimed that documents associated with Delivery Order #92 contain Confidential Business Information (CBI). As the documents do not contain rate information, GE questions the basis for asserting that these vouchers are CBI.

that process of evaluating the CMS report. As outlined in EPA's presentation at the March 2, 2011 CCC meeting, the interviews were part of EPA's ongoing review process. Svirsky March 2011 Presentation at 3 ("EPA is evaluating the alternatives in the RCMS considering: Input received from stakeholders...")

Even assuming, *arguendo,* that this investigation was not part of EPA's review of GE's proposed CMS, it is still an EPA directed study or investigation. Seeking out and obtaining the views of the public to support EPA's remedy decision by hiring a consultant to gather that information is surely "studying or investigating the Rest of River ... to support the preparation, development, and selection of the Rest of River Remedial Action ..." Decree ¶4.

We are mindful that in previous discussions over costs EPA has claimed that U.S. Future Rest of River Capped Response Costs (paragraph 96) are limited to "field work." While we do not agree with that interpretation, regardless, in all respects this work was undoubtedly "field work." EPA contractors were in the field, gathering information related to one of the remedy selection criteria, the views of the community. This work cannot be considered the type of "non-field work" effort that EPA will undertake once public comments are submitted and EPA is back in the regional office responding to those comments and preparing its final remedy decision.

D. DOJ

EPA has charged $60,500 for DOJ costs. We ask EPA to explain what aspects of work DOJ has undertaken that EPA submits should be allocated to paragraph 95.[8]

E. Army Corps of Engineers – 169

Under this contract, EPA has billed GE more than $426,400 in direct costs plus $140,000 in indirect costs. This equates to $566,400 or close to 1/3 of the total paragraph 95 bill. The work is for support by a number of contractors retained through the Army Corps, including Isosceles, Weston, Hydroqual, Stantec and Geodesy, as well as the contractor management and other related costs incurred by the Corps.

GE questions why these charges are allocated to paragraph 95. In general, as described in the documentation, the costs fall into several categories:

1. Public outreach and the "Charrette" – These include contractor charges (totaling approximately $145,000 + indirect costs), for workshops, outreach interviews, and the "situation assessment." This work supported the study framed for EPA by the ADR contractors to interview stakeholders (discussed above), as well as to support and participate in the "charrette" process, in which EPA held workshops on the remedial alternatives, including those evaluated in the revised CMS report. Indeed, the charrette was a central part of EPA's "public outreach" program as it reviewed the remedial alternatives outlined in the draft CMS report.

[8] GE is not seeking privileged information, but does seek some explanation for the DOJ charges.

Svirsky March 2011 Presentation at 4. In fact, as EPA has acknowledged, it conducted the charrette, in part, in order "for the public to interact with EPA regarding their views on the remedial alternatives ... during EPA's decision-making process." *Id.* As such, the costs of EPA's public outreach process fall squarely within the gathering of public input and "community relations" covered by U.S. Oversight Costs. Decree ¶4.[9]

2. Remedy Review Board – The contractors developed materials provided to the RRB (at a cost of approximately $104,000 + indirect costs). This included support for updating and creating, tracking and editing report sections for the Board package. As outlined, the costs associated with EPA review of the alternatives evaluated in the GE draft CMS report are U.S. Oversight Costs and should not be allocated to the FY 2011 Bill.

3. Fact sheet – The contractors have helped EPA provide information to the public about the different remedial alternatives evaluated in the proposed CMS report. The cost of the "fact sheets" (approximately $10,000 + indirect costs), however, are also not recoverable under Decree ¶95. Rather, for the reasons outlined above, the costs of public outreach and education while EPA is evaluating the CMS are "community relations" costs, which are covered by paragraph 98.[10]

4. Meetings with academics – According to the documentation, EPA and its contractors met with representatives from the Yale Forestry School but EPA states in its cost summary that those costs of "outreach to educational institutions are not billable pursuant to the consent decree." Please confirm that all related charges were excluded, including any other charges (such as related Army Corps time/travel, as well as EPA employee time/travel).

5. Supplemental modeling and technical analysis – According to Voucher 61028734, EPA tasked its contractors to conduct additional modeling and analysis as part of its evaluation of remedial alternatives. Specifically, HDR HydroQual provided support for developing revised modeling boundary conditions; and Weston, HDR HydroQual, Stantec Consulting, and Geodesy provided support for estimating floodplain removal volumes and areal extent of removal for floodplain alternatives. We estimate that the cost of this work was approximately $71,000 (plus indirect costs). These analyses either are "supplemental studies" covered by U.S. Oversight Costs (paragraph 98) or constitute "studying or investigating the Rest of River ... to support the preparation, development, and selection of the Rest of River Remedial Action" (paragraph 96) which specifically contemplates covering EPA "modeling" work. Decree ¶4.

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[9] As outlined above, gathering this kind of public input also falls within EPA "studying or otherwise investigating" the Site (paragraph 96). In either case, the effort should not be charged under paragraph 95 of the Decree.

[10] Alternatively, while EPA may, of course, choose to use its resources to educate the public generally about PCBs, such general education are not included within the scope of EPA's Rest of River study and remedy selection work in the Decree. Decree ¶22. As such, these costs are not incurred "pursuant to provisions of this Consent Decree" and hence are not recoverable.

6. General technical support by contractors and Army Corps costs managing, overseeing these contractors – There are also close to $69,500 (plus indirect costs) in contractor and Army Corps charges to support the activities listed above. The contractor charges include "Isosceles Group technical support" (approximately $4,200), "Randall contract management and procurement" (approximately $1,700), and "Weston project management support (approximately $21,600). These are precisely the kind of costs covered by U.S. Oversight Costs, which include all "contractor costs" and "technical support costs." Decree ¶4. In addition to the contractor charges, the Army Corps has itself incurred costs (close to $42,000) for labor, travel, and project management in the course of overseeing the contractors managing the work under the interagency agreement. Those costs are likewise part of the costs capped under paragraph 98. Decree at ¶4 ("U.S. Oversight Costs shall include... interagency and intergovernmental agreement costs (including ... U.S. Army Corps of Engineers costs")).

F. ASRC Management Services, Inc. - EPW05052

The paragraph 95 bill also again includes charges under an ASRC contract (EPW 05052) of approximately $50,500 in direct costs for a variety of "records management" tasks. When the $16,600 in indirect costs is factored in, this totals about $67,100 in document management costs. As outlined in previous correspondence regarding EPA cost bills, we submit that these costs are also not properly assigned to paragraph 95.

According to EPA's contractor's progress reports, this work is described generally to include, among other things, "records, information, and project management support for the GE-Housatonic River site," the work to "process, organize, and file records and collections," to "provide reference on collections," and to perform "index QA review" for documents that had been indexed at various times in the past (including during 2008-2010) "for the GE Oversight site." This very general processing of documentation for the Site as a whole should not be charged to paragraph 95. Indeed, if the cost of this work is at all chargeable under the Decree and cannot be reasonably apportioned to a specific category of work, then it is precisely the type of work "incurred in support of tasks included in more than one cost category" (Decree ¶100f) that should be allocated to the Site as a whole by way of a cross cutting methodology.

Without exhaustively listing each example, a few representative selections from the progress reports include:

- Invoice Number 33: "Repository Audit & Visit (RTS 14886) - Pulled 16.5 linear feet of files from field repository and reorganized remaining holdings."

- Invoice Number 34: "EI Data Entry for GE Housatonic (RTS 15195): Received the final POLREP from the CERCLIS SA. Entered the media, volumetric amounts, response actions, and contaminants of concern into CERCLIS. Notified the CERCLIS SA that data entry was complete and that the ReportLink reports could be run. Performed index QA corrections for April 2008, May 2008, July 2008, August 2008, November 2008, January 2009, June 2010 - August 2010."

"Perform Corrections on General Electric Indexing (RTS 14785): Received confirmation that the General Electric Interagency Agreement documents can be changed. Noted that the 528 documents would be changed via a script so that they all have the Interagency Agreement phrase in the title and that they are indexed to the Cost documentation document type and associated to the Confidential Business In formation (CBI) and FE4 Trade Secret/CBI access types."

- Invoice Number 42: "Review process for posting of GE - Housatonic documents to Web (RTS 15428). Received confirmation from COR that the GE-Housatonic FaceBook page is being managed by Office of Public Affairs and outside scope for OSRR RIC."

It is not at all clear what these and other entries on these vouchers mean or why they are recoverable under the Consent Decree. However, to the extent this work is for the management of data and documents for the development of the administrative record related to the Rest of River remedy, those are costs the parties expressly contemplated would be covered by paragraph 96. Decree ¶4 (costs "in connection with studying or otherwise investigating the Rest of River ... to support the preparation, development and selection of the Rest of River Remedial Action" which "*shall include*, but not be limited to, costs that EPA Incurs for ... data management, ... *general contractor costs (including, for example, administrative record development...*") (emphasis added).

In addition, these costs in fact relate directly to other capped categories. For example, the documents include a reference to "Convert 1999 Admin. Record for Removal Actions Outside the River from tiff to PDF CD-ROM." *E.g.,* Invoice Number 42, 44. The management of documents associated with these activities should not be charged to the uncapped category, but to the category associated with EPA's oversight of the Removal Actions Outside the River (paragraph 98).

Further, these documents again include charges for ASRC to "convert GE 104E Zybase images to SDMS." (*See* various Invoices). It is not clear what portion of the costs were incurred in connection with this task, and GE would ask EPA to provide (or estimate) that amount. In addition, GE submitted the 104(e) over a decade ago, and, as such, GE asks EPA to explain why this conversion project still continues and why these additional document conversions are costs being incurred "pursuant to the provisions of this Consent Decree."

* * *

Thank you for your consideration of this letter. Should you have any questions on these issues, please contact Rod McLaren or me at your convenience.

Sincerely,

/s/ Samuel Boxerman

Samuel B. Boxerman

cc: Michael Carroll
Rod McLaren
Andy Silfer
Mark Gravelding
Dean Tagliaferro

EXHIBIT B

Transcript of Statements of EPA Personnel at April 7, 2011 Workshop

Curt Spalding

What a great facility. I'm Curt Spalding. I'm the regional administrator of EPA, appointed a little over a year and a half ago. I'm very pleased to be here with all of you today. I'm especially pleased to be in this wonderful facility. Before I do anything else, I want to thank the folks who've been putting this together. I know that some of you have been here for the other workshops but the team that's put this together, I want to acknowledge the staff at EPA and the facilitation and all involved. It's probably one of the best things I've ever seen in all the work I've done nearly 20 years of environmental work, this kind of engagement process. I think this is some of the best that's ever been done in the country and I'm very proud of it. I also want to thank all of you for coming. I know some of you have been to a couple of these, this may be a first night. I'm going to go over some slides, presuming that you haven't been here, but if you have, if you have been, I apologize for the repetition. But this is only as good as the work and the education you all put into it. We feel very strongly and my boss especially feels strongly. My boss is Lisa Jackson, the administrator of EPA. She says a couple things to us as regional administrators, is that we are obliged to reach out to community and engage community in constructive conversation around tough issues that we have to deal with, so I'm very pleased you could come. You know the only way that works, is community comes out. So, again, thank you.

I'm going to say a few things before I get into the slides, that really speak to my responsibilities as administrator, regional administrator of EPA. You know, I came to work and the great staff at EPA, my deputy Ira Leighton, organized a book for me to look at. And in the very front of the book was this issue. The scale of this issue is something that was explained to me very early on. The scope of the concern, the kinds of challenging issues that are at play here. So I want you to know that right out of the gate, my coming to the office of EPA and taking on the leadership of Region 1, this has always been a primary issue for all the staff at EPA, not just the staff who are working at it here, but a lot of people. In thinking about this, and I don't think about this in its own little box, I think about this across the region. We have a big challenge in Region 1, it's a challenge that we've been carrying on for years and I call it the challenge of restoring green capital. One thinks the Berkshires is perhaps different than other parts of the region, but it's not so different in an important way. We all know that with industrialization in this region, we lost a lot. We lost our rivers to a large degree. Not just this river, we lost a lot of rivers. The quality was greatly degraded. We also lost a lot of land. A lot of land was contaminated. Programs were built to address that. But fundamentally what we're about in New England is restoring this green capital upon which we can build the prosperity that's going to carry through the 21st century and the generations beyond. And I always like to put this kind of work in that context, because a lot of people like to project this conversation as, "It's economic versus environment." It's not that at all in my mind, because the economy in fact is built on the environment in New England. We don't have prosperity in New England if our land is contaminated and our water is unhealthy, and we know that upfront.

The other point, again, I bring to this, you know I've only worked for EPA for a year and a half. I did work for EPA many years ago, but that was a short stint also. What you learn as a newbie at EPA is just the enormous talent that goes into the idea of cleaning up sites. Cleaning up contaminated land. If you think about it, there probably isn't an organization in the world that has, knows more about cleaning up land than EPA. We do it all over the country. We have talent like the talent you've met here all over the country. There's a cadre of superfund practitioners and remedial professionals who have done sites and other sites and others. We have people here in the back who you may have met who have over 30 years of experience dealing with sites and what you can do and the kinds of opportunities there are to clean it up. And their work is always measured against the work in other regions. In the end, what we will produce here, we hope, we expect, let's not hope about it, we expect, is to produce what we call a one EPA Remediation Plan. By that, I mean anything that we do here will need to be measured against work elsewhere around the country. There will be peer review. Bob will talk about that later, but I want you to know that this, this, you're not alone in this. Not alone at all. The talent, the best talent from EPA is being brought to this, to this problem. Talent that you have met, I think, but talent that's around the country.

The third thing that my boss says very clearly is we have to be a listening organization. I've said this to the region and we're doing a lot of work to help us with listening skills. Most people know that high performing organizations are real good listeners. They can hear, they can understand, they pause, they listen, they try to get in the minds of the people who are speaking to them. What are they really saying to us? This, peel back that onion and really understand what they're talking about, and indeed, that's what we're trying to do here. And I guess when we get to the charrette a month from now, you'll be listening even more. These are about laying this, this process is about laying the groundwork for that listening process. But listening is something we value very much in the leadership of EPA. And of course, I wouldn't be doing my job if I didn't repeat what is repeated to me over and over and over. We make decisions based on sound science and the law. And I guess I wouldn't be out of school to say what you're hearing in Washington right now is a conversation, perhaps at a very high level, that that message isn't really taking hold. Nobody at EPA is pursuing things cause we like to do it, or we're arbitrary about it. We do it because there's a need to do it and there's science that supports what we do and there's a law that gives us the authority to do what we do. And I want you all to remember that as we go forward.

Nobody, I wish we were all home being able to play softball on this nice night, or out to dinner with our friends and family. We're all here because something pretty tragic happened in the Berkshires in the Housatonic River a couple decades ago. I mean if it happened today in real time, it would be a horrible thing and the headlines would be terrible and you know, what you saw around the Gulf spill would probably happen. But, this happened a long time ago, over a longer period of time so the dynamics are different. But that said, we're here because we have a responsible party that needs to do something about the clean-up of this river. And we all know that we need to keep that in mind. EPA's not bringing you here. The need to be here is to create a vision and a future for a healthy river that we can all use and enjoy going forward.

So those are the things I want to bring to people. I'm going to go through these slides really quickly. I will be back for the charrette. Today I spent time meeting with people, we'll do some more meetings with them. There's a process I'm going to have to manage and that's getting the

process for a remedy through a larger conversation all the way around to the end of the year. Hopefully we'll have something that is something we can all work from. But right now, there is no remedy until we go through that, through that whole process. Looking at what we're doing today, I don't need to talk a lot about these things. You can read as much as I can recite. But the bottom line is, we have steps we're going through. Corrective measures studied.

This is an RCRA project, not a superfund project. You all know this by now. Our workshops, again, this is as good as anything anyone's tried to do anywhere in the country. We're going to write about this when we're done. I can guarantee you the national program is going to hear about how successful this is, but that success depends on you, ultimately. We're going through our workshop phases tonight. We're exploring alternatives, as you know. Perhaps tonight will be as interesting as any of it, but I've heard from people I've met today that the conversations about the river were really enlightening and I'm glad you've enjoyed them. Here decision criteria, that, I want you to know right up front, I couldn't go into specifics about this right now if I wanted to. I'm the political head of the agency. You have talent here that's going to work with these standards and bring them to me and explain how they all go together and then there's going to be some key decisions. But know that these are the criteria we work with. Any remedial action or any RCRA corrective action around the country has to deal with the same thing. This isn't made up just for here. This is a national, a national standard that we have to address.

Tonight's agenda, we're going to go through the different alternatives and how we're thinking about this, but I don't want anybody to go away from here going, "Oh, we know what they're going to do." Because that would be wrong to conclude that. Tonight we hope you get your heads around the same kinds of things that we're trying to get our heads around and trying to create a future for the Housatonic that we all can be proud of and that our kids can be proud of and their kids can be proud of. As I think about this, and I think about this a lot, believe me. On matters of such gravity as this, I think about this a few minutes every day and when we come to these kinds of events, I'm thinking about this all the time.

I, you know, what I keep thinking about is that this is our opportunity. That we're not going to get two bites at this apple. We're going to get one. And we have to do it well. And I think the folks at GE would say the same thing, that this has to be done, we have to do our very best here, to come up with something that creates that future for the river we all want.

And so I want to emphasize and close with this point. We do this with utmost seriousness, utmost commitment, and really hard work will be put towards this. And I can tell you the team you're meeting here is the best there is in the country for taking this on. And I'm very proud to lead them and I hope you all feel the same thing as you've gotten to know them through this workshop process. As we go forward, it's always appropriate, Jim Murphy's here, questions are welcome, open dialogue is welcome. We need that input moving forward. And so I'm so glad you're here to learn more about this and participate in the process. So it is now my, who am I turning it over, to you Steve? All right. So again thank you all and I will be back. And I'm again, I'm watching this as closely as I can.

* * * *

Bob Cianciarulo

Thank you, Steve. I'm Bob Cianciarulo. I'm chief of the section that basically oversees the federal clean-up projects in the state of Massachusetts and that includes the GE Housatonic Project. I'm going to try to put together a lot of what you've heard over the last two and a half days and how they'll sort of fit into the alternatives and technologies and the decision making that we are embarking on here for the "Rest of River" project.

So this is a diagram that some of you maybe have seen in the past that basically goes through a lot of what you heard about over the last couple of days. The investigation that we have conducted on the river, the various risk assessments; ecological and human health risk assessments. You heard yesterday about the efforts on modeling the behavior of the river and the contamination. Those, all of those studies, basically, fed into one of the worst acronyms we have, probably, IMPGs, Interim Media Protection Goals. Basically a set of clean-up goals that would address any unacceptable risks that we've found to human health or the environment as sort of a benchmark of what we should be shooting for in any type of clean-up activity. All of those fed into the process that we're, that we have been under way with now as the Corrective Measures Study, the CMS, you may hear me refer to it as a feasibility study. At other sites we might call it a feasibility study evaluation of various clean-up options to deal with any, basically to deal with risks at the site. That document will feed into, really, the next major process that we are leading up to here, which is when EPA comes out and proposes a clean-up plan for public comment. So we haven't made any determination on what we think the appropriate course of action is. You have seen GE's studies, GE's reports on that and we really want to hear from you through this process and through the upcoming charrette process on sort of, you know, how you feel about where things ought to hit. And then that proposal would lead then to a final clean-up decision after a public comment period. I will get into all of that in a little while.

So the corrective measure study went through a couple major iterations. The last major revision was in October 2010, and that was basically put out for public comment at that time; we got a large number of comments on it. There is a wide range of alternatives and I'm gonna run through some of this as best we can.

Ten alternatives for sediment clean-up, nine alternatives for flood plain clean-up and there are five alternatives that deal with treatment or disposal of any material that might be excavated as part of any clean-up. We thought about how we were going to portray this giant table. We probably would have needed the whole wall to display it so you can see it. So it's on page 9 of your workshop booklet, I'm going to refer to some of this (and its really sort of a take-home message) but this is really the array of the ten sediment clean-up options. Across the top if you look in your book it is basically broken down by river reach, and you've heard that over the last few days. Breaking the study area into smaller areas and the potential clean-up options could vary from reach to reach and even within those reaches and then here we have ten sediment clean-up options down the left hand side.

Similarly, for flood plain alternatives, and I'm gonna get into these in a little more detail, there were nine flood plain alternatives and those aren't necessarily reach specific. Although, they'd be applied basically by what type of contamination was where, and that's on page 10 of your book. So there are those two big tables, so I've realized that that leaves all these questions.

"How many clean-up options are there?" We've heard some discussion of, "Well, there are three plausible options." Well, it's far more than that and we have what I just said: ten sediment alternatives, nine flood plain alternatives, and five treatment storage and disposal alternatives. We've tried to put together a little math, if you think about those two matrices overlaid with the potential combination between the two and then add in the different options for treatment or disposal, we're up to about forty-two hundred different combinations of clean-up alternatives all still on the table, all still being evaluated. Now if you try to simplify forty-two hundred options, a lot of them fit as far as sediment goes, most of them fit into these general categories, and I'm gonna try to run through examples of each of these to try to give you a better flavor for it.

"No action," which we are basically required to look at as well, what would happen if you didn't do anything at all. The next one, and Mike Palermo talked about this, Monitored Natural Recovery—he talked about, actually, most of these. The next two, Removal with Capping, Removal with Backfill. In the CMS they use the terminology Removal, a lot of Mike's discussion centered on the term Dredging. Really, there's not necessarily any judgment on how it would be removed but there is many removal alternatives as far as getting sediment out of the river. Thin Layer Capping, which I'll show you an example of is, really, (sometimes, they'll refer to it as Enhanced Monitored Natural Recovery,) to basically speed the process of natural recovery by adding sort-of additional sediments, really, as a dilution method to sort-of speed what might happen naturally and I will get into that in a second. Engineered Capping is what it says again with sort of a more sort-of stable layer, one that's not really expected to mix with the underlying sediment. And many of the alternatives, if you look at that table have sort-of a line item down, down one whole column: Bank Stabilization. We heard a lot about the banks and their potential instability in some areas, and so these alternatives look at ways to sort-of, you know, ways to deal with that. So we're going to look at an example here we took the middle of the table here, this is SED 5, the fifth sediment alternative, and as I said it is basically broken down: reach 5A, 5B, 5C, that's basically from the, all of reach 5 is from Fred Garner Park from the confluence down to Woods Pond, but that's broken up into 5A, 5B, 5C and the banks and then we have further downstream. Woods Pond. Reach 7—is basically the river between Woods Pond and Rising Pond. Reach 8 is Rising Pond. Reach 9-16 is basically from Rising Pond down through Connecticut. So here is an example of where you saw a lot of those terms and how they might they already apply to this alternative. So for reach 5A and 5B the alternative looks at removal of two feet of sediment and then basically replacement of material as a cap over any residual contamination that might be there. As I mentioned the banks. We looked at stabilization and potentially some removal of soil from the banks. This is where we get into these forty-two hundred alternatives. As you reach 5C, combination of two feet removal with capping just like A and B, I'm having trouble aiming here, that's in the shallow areas and then maybe just capping in deeper areas. Similarly in the backwater areas of reach 5, Thin Layer Capping and Monitored Natural Recovery, so kind of a Monitored Natural Recovery here with an enhancement of Thin Layer Capping, Removal with Capping, Capping, Monitored Natural Recovery, you've seen that term before MNR. So that's one alternative that obviously involves a number of different approaches within that same alternative and even within smaller areas of the river.

So let's talk about Monitored Natural Recovery just to, sort of, I guess, reiterate what Dr. Palermo said. Basically, you know the heart of it is a monitoring program of various

environmental media sediments, surface water, you know, organisms etc., coupled with institutional controls so in this case it might be the continued fish advisories or other sort of advisories; we would use that term Institutional Controls. When you talk about Thin Layer Capping, you remember that other term I think you saw it in one of those other slides, EMNR, Enhanced Monitored Natural Recovery, really, this graphic is trying to contemplate basically an addition of a thin (probably sand) layer that's not really meant to be a barrier but is allowed to mix with the underlying sediment and sort of speed the process of what might be sort of natural sedimentation, natural capping. Typically not suitable for sort of the more you know, rapid running reaches of the river; more for sort of impounded areas. That's where we have seen that remedy selected at other sites. So many of the alternatives involve sediment removal from the river bed and banks and a lot of those alternatives, you saw them, how they were written, don't necessarily talk about, again, the sort-of dredging method.

Susan's going to get into some of, you know, sort-of, how some some remediation might be approached but let's talk about river banks because that really follows on some of what Keith was talking about earlier tonight as far as various ways to stabilize the river banks. This is really, if any remedy was selected that involved river bank stabilization, I think it is sort of a highly tailored approach to a particular spot in the river and is really specific to the morphology in the river in those areas as far as what are we trying to sort of protect here on the banks. This is just sort of a typical kind of armored stone or riprap bank stabilization, sort-of an enhancement to that, that could have been looked at as sort-of an additional sort-of vegetative kind of habitat layer on top of that so that if you still needed sort-of a stone armoring, you'd still minimize any adverse effect that you might have by trying to add another layer on top. All of these alternatives, the way you've seen them here as we are showing—the excavation and backfill of the sediment underneath—it's just as an illustration. And then I guess the next evolution of that, that we are looking into more seriously, is the concept of bio-engineering. Again, this involves the sediment material here but using other natural materials, especially below the waterline. This is a little illustration of a sort-of a log, tree using other natural materials and really creating a stable bank that's working with the river processes. So again, it's, sort-of, I guess, looking at the morphology you've heard about the last few days, "Where is the river?", "Where is the river sort-of wanting to go?", and, you know, "How can we work with it and not against it?".

So when we get to flood plains which, for us, when we do you know, the eastern part of the state, a lot of just sort of soil remediation jobs, the flood plains soil is a little more sort-of standard, somewhat easier to comprehend for me anyway, perhaps not for you, but is numerical standards set up for the protection of human health and the environment and we heard from Donna Vorhees yesterday about sort-of EPA's risk range of one in 10,000 to one in 1,000,000 risk. So clean-up levels would be established that basically represent those risks, represent sort-of being protected so you get to appoint where its an acceptable risk. Also looking at non-cancer hazards—same thing. So picking a clean-up level that is sort-of protective of human health or, similarly, clean-up levels that are protective of ecological risks or other PCB concentration-based limits, so in the Corrective Measure Study in that table that you have in your book you will just see some places where it says, you know, "basic excavation of everything over 25 parts per million PCB," and that was one of the alternatives that was evaluated. So this is just, I guess, a simple schematic of what flood plain remediation might be, so in that table it might say "removal of top foot of sediment that exceeds a particular clean-up level" so you know this is basically

excavation of flood plain soil and then restoration of the area. So those were really looked at separately, the sediment alternatives and the flood plain alternatives in those tables. In this revised CMS, GE also looked at a series of combined alternatives to sort-of look at kind of how particular alternatives of sediment and soil might be cleaned up in conjunction with each other. So that's really the combined infrastructure if there is required sort of a road and a staging area to excavate a flood plain area and you also need to work in the sediment, looking at how those sort of work together that you can sort of minimize those impacts and obviously you are not building two roads to the, to the same place. So this is not an exhaustive list and I'm not gonna sort-of go through them, I think the volumes and cost are also in your book for these various combination alternatives, but again just because these combinations were looked at doesn't mean any of the alternatives that weren't in those combinations aren't still on the table again, they are still on there, and they are still part of the evaluation.

So here is an example of a combination alternative. In any sort of particular stretch of the river you might have an area where you have a area flood plain soil that you believe that requires remediation in that same area you may be removing the two feet of sediment, say from the base of the river and doing some type of a river bank stabilization. Then the next layer is really the treatment and disposal option and that looks at if one were to select any type of active remedy that involved the excavation of soil or sediment, what would you do with the resultant material. So there were five options looked at in the CMS. They were, two of them were disposed in a landfill, one of those was an on-site facility, excuse me, one of those was an off-site facility and another one was what we consider an on-site local disposal facility and as many of you know GE's study identified three potential locations for those, for that facility.

Another disposal option that hasn't been talked about a lot but was evaluated in the CMS was disposal in what's called a Confined Disposal Facility, a CDF and that would typically involve sort of an area essentially within the river, for sake of illustration maybe say one of the back water areas that could be cordoned off, basically cut-off from the river. Contaminated sediment would be placed in there and then covered over so sort of a kind of a landfill within the river. So that was part of the one of the options evaluated and then there's two treatment alternatives evaluated. Chemical Extraction, which basically uses a chemical to try to remove the PCBs from the sediment, basically reducing the concentration of the sediment, and Thermal Disorption, which basically uses heat to sort-of remove the contamination from the sediment. Both of those resulted in some type of concentrated liquid waste that has to be typically shipped off-site for incineration and then, that treatment is typically then followed by disposal of that clean sediment unless some type of reuse option was found. So these technologies would be successful in reducing the PCB concentration in a material but it might not reduce it to a level that it could be sort-of put back in the river or used elsewhere, so then that also may have to be disposed. So, that was also evaluated in the study. It is important to note all of those technologies, now, those two technologies are what we call ex-situ technologies, and we talked about that. I'm losing track of my days now, I don't know if that was yesterday or if it was Tuesday. Ex-situ technologies, that is, both those technologies would involve building a treatment plant and bringing, transporting those materials to that treatment plant for this ex-situ treatment. Innovative technologies that deal with materials in-situ, sort of the whole concept that we've talked about in the past, of "Is there something that could be added to the sediment that would basically reduce the contamination?" in varying stages of development. So at this point, I think

we heard from Dr. Palermo, nothing that we're aware of right now that's sort-of implementable at a large scale at this point, but you know we will be looking for future opportunities to test any emerging technologies in the near-term and in the long-term and Susan is going to talk about Adaptive Management (there's that term again), but we would like to, in any clean-up plan we might come up with, I think we'd like to work in some type of process for exploring, you know, new and better ways of doing whatever it is we feel needs to be done out there.

So let me talk about making the clean-up decision. This may be the third or fourth time now you've seen these permit standards. These are basically in GE's permit that is governing this clean-up. That permit is part of the consent decree that really governs the entire site. These are really the metrics we're using to evaluate those alternatives individually against how they meet these criteria and comparing alternatives, sort-of, you know, preparing which ones do certain things better. So, but, it really starts with these general standards which I sometimes refer to as, like, threshold criteria and number one is overall protection of human health and the environment, number two is control sources of releases so, you know we need to look at them, we use the model for this a lot, is looking at whatever you might do in an upstream reach, how that impacts downstream areas. Obviously the goal of anything is to make sure that you're controlling any further contamination downstream. And compliance with applicable or relevant and appropriate requirements and laws (ARARs), basically environmental, and laws and regulations that might govern the clean-up. So, the Clean Water Act, TSCA the Toxic Substances Control Act, which is the PCB rules.

Then you get into the selection decision factors which, I would refer to as kind of balancing criteria in sort-of looking at how each alternative meets each of these criteria. Long-term reliability and effectiveness, attainment of those IMPGs (the clean-up goals), reduction, how an alternative reduces toxicity, mobility or volume of contamination, its short-term effectiveness, its implementability, "Can it be done?", and its cost.

So let's talk about how EPA selects a remedy. This is really a big step in that process as we, sort-of, really try to gauge your thoughts on the clean-up. We do have to go through a series of internal reviews before we're able to get to a point where we can come back here and talk to you about what we think our preferred clean-up approach is and so a big step in that is this natural remedy review board which really is sort-of an EPA internal peer review process. A group of, basically, our counterparts from across the country and in our Washington office making sure that we're making sound remedy decisions and that we're being consistent across the nation on how we address clean-ups. Once we get through that, we'll basically be proposing what we think is the best approach for clean-up to the public for your input, and as part of this process we'll actually include a draft revision to this permit that GE has that would govern the clean-up. The comment period would be a minimum of forty-five days, we'll have additional public meetings and they'll actually be formal hearings where people can make formal, sort-of read testimony; and we'll have to collect all those comments, address those comments as we move towards trying to make a final clean-up decision. So, this week of mini-workshops was really to help everybody kind of get up to speed and remember all of the work that's really been done over the past decade as far as the past investigations and risk assessment studies and really hopefully give everyone a good basis for moving towards the May 7th charrette where we can help, you know, get your views about the clean-up we'll talk about at the end of the night maybe some of the thoughts on what we might talk about there, but, you know, help you think about our

criteria that we've laid out there as far as what we have to judge the clean-up against, but also talk about other factors that you find important and, again, material for those workshops, for all of these events are on that Housatonic web, excuse me housatonicworkshops.org site. Thank you.

Steve Shapiro

Thank you Bob. A few questions. In the stretch of Housatonic River already restored, riprap was used to stabilize banks. Do you anticipate any stretches of the "Rest of River" using riprap for stabilization purposes?

Bob Cianciarulo

Okay, yeah a lot of the challenge is in the first two miles of the river, or really what we've talked about in the past (Keith and other speakers) of a highly developed area with often steep banks and in many cases sort of buildings and homes sort-of right up against the river, so that certainly influenced the reconstruction methods. The river, as you know, gets very different as you move further down stream, so I really think it kind of depends; it depends on where you are, we talked about, you know, considering the morphology, considering about the behavior of the river in that particular area, but, as you saw, I had three examples up there. In one of them we had that stone armoring which is, you know, basically a riprap material, so it certainly may be in the mix in any type of bank restoration, but I think it's, if and when we get to that point, it's really going to have to be, sort of a location by location consideration. Susan is going to get into a little more of that in the next session as well.

Steve Shapiro

Okay. Even though the question was asked before, is it EPA who does post-restoration monitoring, with GE funding this monitoring?

Bob Cianciarulo

Well, the consent decree does require GE to implement the selected remedy, whatever we end up here as the selected remedy and we would consider the monitoring to be part of that, part of that process, but I can use examples from other sites, you know, in other parts of the state in many cases, you know, when the PRP is, we'll call it the responsible party, is doing some of that long-term monitoring. EPA is still on the job overseeing it and we certainly have the opportunity if we found it necessary to do additional monitoring ourselves as well.

Steve Shapiro

Is GE going to monitor?

Bob Cianciarulo

GE would be required to, if they're required to implement the remedy then they would be required to maintain the remedy. Which will involve taking samples under our direction.

Steve Shapiro

How does EPA view newer innovative bio-remediation techniques for PCBs: skepticism, enthusiasm, curiosity? Particularly, is EPA willing to include this technique and see two methods, at least on a trial basis? In such a large, a costly project it would seem that cutting-edge technology seriously should be welcomed even it would mean more time is needed to evaluate its results.

Bob Cianciarulo

Yeah, I think we've touched on this a few times and we can talk about it further again, we don't know of a technology right now that will be ready to be implemented at a scale we'd be talking about here as far as in-situ method but we definitely don't want to close the books on, you know, new good ideas that come up over time. Any clean-up here if, it is a lengthy process, you know, would be a, we would have an opportunity to adapt as we went down and no one's going to ignore a great idea that comes up if a new technology comes on the scene in five years, ten years, whatever. Yeah, we'd be crazy not to consider it.

Steve Shapiro

In the flood plain area the excavation slide presented earlier, were the trees present excavated around or were they removed? In cases where the trees are removed in the flood plain area, what have been restoration practices on river sites?

Bob Cianciarulo

Well, I think people were asking about the example there where we showed sort of an area there was a tree in the middle of that hole, that tree would have to go. There will be, we can't say that if there was a flood plain remediation that was in an area that had trees in it that, you know, there would be some clearing of trees. I think what we tried to explain over the last few days is a, you know, it doesn't mean forever, you know, there will be any kind of clean-up would require reconstruction and restoration and you can't replace a fifty-year old tree right away but there would have to be a replanting program, and, again, we've tried to show over the last few days how systems like this can recover.

Steve Shapiro

Okay. One last question for now. Bob, you mentioned parts per million, but the tables in page 9 and 10 are in milligrams and kilograms please help us convert milligrams, kilograms to parts per million.

Bob Cianciarulo

One to one. I apologize for that yes. Milligrams per kilogram is a weight-based method, parts per million is really one grain out of a million grains if you will sort of in a, if you had a million marbles and one part per million PCB, that's one marble in a bucket of a million marbles.

Steve Shapiro

Thank you Bob.

Bob Cianciarulo

Thank you.

Steve Shapiro

We will try to get to the rest of the questions for the panel.

Our next speaker is Susan Svirsky. Susan is the EPA project manager for the "Rest of River". Many of you know Susan, you have worked with her for years. Ms. Svirsky has worked for the EPA over thirty years in many different capacities, she graduated with a degree in wildlife ecology from the University of Maine and subsequently worked for Maine Inland Fisheries and Wildlife. She began her career at the EPA and Water Quality Monitoring program in Washington D.C.. Susan has taught sessions on ecological risk assessment and restoration of contaminated sediment sites and has authored numerous technical papers on these issues, as well as those associated with the "Rest of River". Susan Svirsky.

Susan Svirsky

Thank you Steve. Thank you all so much for being here tonight and for those of you who have stuck with us for the whole three nights, it's just wonderful to see you all here and to be able to share information that we've gathered over all the years, so I really want to give you my heartfelt appreciation for being here. So, I'm going to switch gears a little bit here. We talked about what potential alternatives might be out there and in reading all the public input that I received on the corrective measures study that was submitted in October and also in talking with the Certus folks about the interviews that they conducted with many of you all over the last few months, it was obvious that there's lots and lots of questions that go beyond the selection of the alternative to how an alternative might be implemented. So rather than leave you all hanging with regard to so many of those questions I'm going to talk in just a very general sense about the types of principles or concepts that EPA would envision would be applied to any active alternative. So it's a little bit of a switching of gears.

Okay, we've pretty much covered this all, we are in our decision making process. No decision as to what alternative is the appropriate alternative to meet those nine criteria has yet been made. We obviously are still looking to you all for your input through this process and your questions and the charrette and going forward. We, if we as I just said, if we did select an active remedy, what type of principles would we want applied to the implementation of that remedy going forward.

Well what does this mean? Any clean-up of the river sediments, banks, flood plains, soils should first be done in a carefully planned and thoughtful manner considering: first off, the PCB contamination and risk production issues. Secondly, the river processes that we have heard about over the last couple of days; the species and habitats of great concern to us all; as well as

cultural resources which while they were touched upon on Tuesday morning by, or Tuesday evening. I probably saw the presentations three times Tuesday so I'm confused, by Rich DiNitto. We have cultural resources in this area that we might have to be concerned about during any act of remediation. Downstream impacts of a remediation and quality of life issues for those in the area of a remediation. Any active remedy in EPA's opinion would have to be implemented with a surgical mindset. I will explain what that is in a few slides. We would ensure that restoration is an integral component that goes hand in hand with the design of any remedy. They can't be done in a vacuum, they can't be done separately they have to be done in concert with one another so it is an integrated process. Provide the ability to improve and adapt as we go on. Bob alluded to that and I will speak a little bit more to that and lastly continue to take stakeholder input through the process. We can't do it alone we have to do it with you if we were to do anything at all.

Okay, just basically recapping from primarily yesterday, PCBs in the Housatonic River are posing a real risk to human health and harm to animals in the flood plain and the river system. We have demonstrated that through our peer reviewed risk assessments. I welcome you to, if you weren't here last night look to that web site that Bob just posted; all the presentations are going to be there and you can get a quick crash course in what's contained in the feet of document with regard to the risk assessments. And according to the analysis that GE had preformed and included in the Corrective Measures Study, in many cases they projected out model results and were able to demonstrate that the PCBs are not going anywhere or being buried to any extent for the foreseeable future in most cases and in their cases, in the case of the Corrective Measures Study they only went out to say greater than two hundred and fifty years.

Okay, river processes, the river channel as we heard on Tuesday has been altered by numerous activities on the part of man over the last couple of centuries and it has not recovered. We have a lot of evidence for that which we discussed on Tuesday, of channel straightening, relocation, loss of some connection to the flood plain in certain locations, the clearing of the flood plain, that all of that in the watershed alterations, altering the sediment load in the system which then creates a response by the river to than altered sediment load. So that means, as Keith has eloquently said, we have to work with the river if we are to do any active remedy, we can't work against it and Mark Velleux yesterday had a really cute cartoon of the river coming up to bite an arrogant engineer until he decided that he needed to befriend the river and the river then befriended him.

Okay species of concern to all of us, we know there are species out in the flood plain and a couple in the river that are of special concern at the state or federal level. Any clean-up has to, has to, look at opportunities to avoid first, next minimize, and lastly, if necessary, mitigate for the impacts to these species and Keith spoke a little bit on two methods that can be used to do those things. Again, lets not forget our cultural resources. We have a need to research if there is an active remedy. Research and implement a program to take place during that remedy. To document and or preserve cultural resources such as Native American artifacts or whatever might be encountered during that active remedy. Over on the Hudson, for example, actually right here, in the mile and a half they ran into one of the oldest, I think it is the oldest dam that was on the river system and they were able to document that.

Downstream impacts: While we were able to show you the majority of the PCB contamination occurs in the thirty miles downstream from the confluence. The PCBs are still moving

downstream they don't just exist in those thirty miles and they continue, and will continue to have adverse impacts downstream, including for example the fish consumption advisories and water fowl consumption advisories in Massachusetts and the fish advisory that continues down into Connecticut. Concerns that folks have regarding sediment management issues for activities such as dam maintenance or removal, maintenance of bridge integrity etc. and the additional cost and burdens that are associated with that because of the presence of PCBs and another example is the degraded water quality in Connecticut for example the river is on their Clean Water Act formal "impaired waters list" due to the PCBs from upstream in Pittsfield and there are also numerous excedences of ambient water quality criteria in Massachusetts as well for PCBs. Lastly, referring back to what Dr. Palermo was saying about resuspension, resuspension happens if you do an active remedy using most of the techniques that both he and Bob discussed. However, it can be managed and it should be managed in a way that only short-term and or trangent impacts should occur downstream from that resuspension.

Quality of life: Quality of life is important to us. It's not all about the animals it's about us too, about you guys, and we believe that any active alternative would have to address and minimize the impact to the quality of life such as the hours of operation that activities might occur during (these are just examples), any lighting that is used during the activities, sound control, dust controls, etc. It also means that clean-up, any active clean-up also has to have an infrastructure associated with it: roads, staging areas etc., traffic. So there would have to be efforts to optimize the impacts from that infrastructure and that traffic to residents, public road systems, traffic patterns, etc. Next, we would have to provide during any active remedy a easy mechanism for stakeholders to interact with us about concerns that they have about the remedy's implementation and any adverse effects that they might be experiencing that we could mitigate. And lastly, providing for ways to allow continue recreational opportunities during the remediation. The remediation will go from up, if it was to take place, would occur from upstream to downstream in small segments at any given time; and with some creative thinking and working with stakeholders we should be able to come up with ways to allow for continued recreational opportunities during a multi-year clean-up.

A surgical mindset: Well, any river clean-up is like a surgery. I've been involved in a number of them. It's necessary to perhaps address the disease, it's painful when it occurs, yet, things heal with time. My example is I've had two knee replacements, and my preference is that that surgeon not go in with a saw if he can use a laser. Luckily he did the latter. Cleaning, clean-up infrastructure and equipment should be designed in any active remedy to have the smallest possible footprint using the best available technology and thoughtful layout of access roads, staging areas, etc. That can be done with a lot of good thought and consideration of areas for remediation and overlap and minimization of areas that don't have to be impacted. There's the thought that perhaps in the implementation of any active alternative, some consideration should be given to perhaps leaving an area of contamination that, if you were just to sort of blindly look at it and say "oh that's a very contaminated area compared to over here," but it takes you acres of infrastructure to get there, that maybe we could let that be and maybe do a little more remediation to reach whatever that clean-up goal is and have a lesser footprint and have the same resultant risk reduction results. And lastly, minimize the amount of time that any given area is affected. Confining work to small areas at a given time moving from upstream to downstream. For example, in Keith's presentation providing the opportunity then for adjacent habitat and

animals in that habitat to co-exist while a remediation is going on perhaps next door and then recolonize as an example.

Restoration: Again I'm going to reiterate this because it is near and dear to my heart almost as much as Keith's. It has to be done hand and glove with any remedial design if we were to do an active remedy. It has to be, the goals of that restoration as Keith alluded to, need to be developed with stakeholder input. We all have to come up with a common vision or as close as we can to a common vision of what we want to see the river look like at the end. The activities need to be overseen by professionals. You can't just go out there and have you know your normal person who might do a great job at operating a backhoe operating in a vacuum without some restoration specialist working with him to make sure that they are doing the best job possible to make that restoration work well. Take advantage of opportunities that this might present during the clean-up. Opportunities perhaps to provide access where there is no access if that's a desired outcome by the public, as an example. Restoration itself is not one size fits all. We have a lot of different habitat types out there. John Lortie, I think did a great job showing some of the mapping that's been done in the ecological characterization over the years of the many different habitat types that exist in "Rest of River". Different restoration techniques need to be applied for the appropriate habitat types and on a micro scale, not on a macro scale.

Restoration goals and time frames are very important and they have to not only be developed but they also have to be clearly presented and communicated and most importantly understood. Particularly the time frames issue. As Bob said, "you can't replace a fifty year old tree," but we can all understand where on the trajectory we're are setting a habitat if we do an active restoration and what that will result in and when, and we need to have that conversation. And lastly monitoring that restoration is an essential component of the entire process.

Adaptive Management. Everybody's talking about Adaptive Management. I was in New Orleans and there was a presentation on Adaptive Management, not one presentation an entire platform, I don't know how many speakers were in it. I think everybody had a different definition. To me what it means is it's common sense, it's how you do a project right and there is not a lot more magic to it than that. And what I mean by doing it right, common sense, any active clean-up will take some number of years. That provides a lot of opportunities to learn and grow and change. As we should. So any design could be staged in a manner such that allows for critical review by the project team. In this case, perhaps GE and EPA and the stakeholders to review the work that was performed while work is still on going to be able to inform the design of the next stretch. That's just common sense. That's good project management. Lastly, in this case it will also allow for opportunities if we get new equipment you know, Dr. Palermo showed us some nifty machines. I've actually seen some bid on some there pretty cool. I got to, a quick sidebar. They got really neat GPS capabilities so you know you could program them ahead of time and you could say I want to get to here, in the sediment bed and they are gonna get to there plus or minus like that. It's very, very cool. But those technologies are going to continue to improve so we should be able to take advantage of that, and also maybe some new innovative technologies in-situ technologies or ex-situ technologies may come along and if they have viable and if they got promise, we need to be able to have the opportunity to take a serious look at them and if they work, work them into our program. So to me Adaptive Management, common sense, good project management, learn and have a continual feedback loop to your program.

Okay, in summary, we recognize that any active remedy is selected or proposed by us and ultimately selected, with the proper planning, management and stakeholder involvement, we can be successful in our implementation such that there will be permanent reductions to risks to humans and the environment, permanent reductions to downstream transport, continued downstream transport of PCBs, a river and a flood plain that over time will regain its beauty, its ecosystem functions and values, its uses for us, you all, for recreation opportunities, as long as an active restoration program is put in place that puts it on the right trajectory and that no long-term loss of species. And perhaps improvement in the habitat quality and numbers and occurrences of rare species, for example, could be a component of a successful, successfully implemented active remediation strategy along with restoration. And with that I will take any questions.

Steve Shapiro

Thank you Susan.

The HHRA shows that consumption of fish is such a high risk that consumption advisory signs posted in Massachusetts show a fish on a plate with a big X, meaning do not eat. Why are the fish consumption signs in Connecticut small in size and convoluted in wording?

Susan Svirsky

Yes. Well unfortunately Susan Peterson, one of her colleagues Traci Iott from the State of Connecticut isn't here tonight. It's because the state regulated the design of those signs and I think it even, this is before my time, I think it might have even gone up to the Governor and I'm not quite sure. But those signs were an explicit design by the State of Connecticut.

Steve Shapiro

Okay.

The section of the river from Woods Pond South has historically been an integral part of the economies of Lenox and Lee. Is the remediation of the economic assets part of overall strategic thinking that will go into the final plan?

Susan Svirsky

It certainly of concern, and I should have added in quality of life, economics. Both positive economics and negative economics; there is benefits from the addition of jobs potentially from remediation restoration to the economy, as well as potential down sides if there is a perception that it's a negative in its implementation. But definitely the concerns downstream; I know Lee and Lenox are trying to have areas that have some mills that have been abandoned etc. rebound and it's a concern that we have and we will be trying to factor into our thought process.

Steve Shapiro

Okay, thank you.

Please explain the consent decree, initiation process and ruling requirements including but not limited to the CMS in thirty seconds.

Susan Svirsky

Good, thank you, it's impossible in thirty seconds. Certainly, I think one of us would be more than willing to talk with whoever gave us that comment afterwards. I particularly suggest that Tim Conway, our attorney, our counsel, be the person they talk to.

Steve Shapiro

Why are we looking at GE's summary of alternatives, doesn't the EPA have its own summary, for instance, how deep some removal has to be. For instance, how deep does some removal has to be?

Susan Svirsky

We're evaluating GE's summary of alternatives, actually not just their summary all of their alternatives and their detailed analysis and we're performing our own and we may come up with something that's different or that's a permutation or maybe it would be one of them or maybe it would be none of them or maybe it would be no remediation, but we are in that process the door is not closed and solely to exactly to what is written in the CMS.

Steve Shapiro

Okay, in Wednesday's risk assessment presentation it was declared that the reaches of the river at the Mass/Connecticut border displayed negligible human risks. How is it then that Connecticut lists the river as an impaired waterway?

Susan Svirsky

Okay, that's a very good question, actually they are all good questions. Because it doesn't meet water quality standards and the impaired waters designation is part of the Clean Water Act and it's with regard to water quality designated uses and the attainment of those as well as water quality standards, that it does not equate one to one with the risk assessment and its construct. So there are two different programs and that's a regulatory designation under the clean water act.

Steve Shapiro

Okay, one last question for now. When in reaches 9-16, example for the "Rest of River" the active remedy suggests that is monitored natural recovery how can that be called a clean-up considering the persistence of PCBs?

Susan Svirsky

Good question. One thing I, we, were remiss in its sticking in Bob's presentation was the map of the concentration gradient going downstream and what happens is after you get by Rising Pond the concentrations drop very dramatically to virtually almost all non-detect and you can't go

clean up what you can't find, so that's why Monitored Natural Recovery is down there. The fish are still contaminated because, if you remember Dick McGrath's presentation about bio-accumulation, bio-magnification, you are what you eat as the, as a fish or as a little fish eats a macro-invertebrate and then a big fish eats a little fish, all the PCBs end up in that big fish, so it only takes a tiny bit of PCBs that perhaps we can't even measure to have the concentrations in the fish be measurable and unacceptable so it's, that might be a little hard to understand. I will, I'm willing to talk to anybody about that concept but in fact, most of the concentrations down in those reaches are extremely low or non-detect.

Steve Shapiro

Okay, thank you.

Susan Svirsky

Could I just say one more thing?

Steve Shapiro

Yeah.

Susan Svirsky

It's my only chance to say this. In the past, myself or other members of the team have been available to meet with folks one on one, with your organizations, or whatever, to talk to you about any questions you have, concerns you may have, etc. So I just wanna say today's work, or the workshops this week and the charrette are not the end. Give Jim a call, give me a call, shoot us an e-mail and we can set something up as we have done in the past to come and sit down with you all and talk about whatever issues are on your mind. So it doesn't just end on May 7th. Thanks.

EXHIBIT C

GE/Housatonic River Site
Rest of River
Corrective Measures Study Process

Susan C. Svirsky

EPA Project Manager, Rest of River

Evaluation of Cleanup Alternatives Underway

- GE is currently evaluating cleanup alternatives for PCBs in the Rest of River
- GE will submit Corrective Measures Study (CMS) to EPA for review and approval (3/21/08)
- CMS will include GE's preferred cleanup plan
- EPA will propose EPA's "preferred alternative" for public comment, and make final remedy decision
- Today's presentation provides an overview of the CMS process

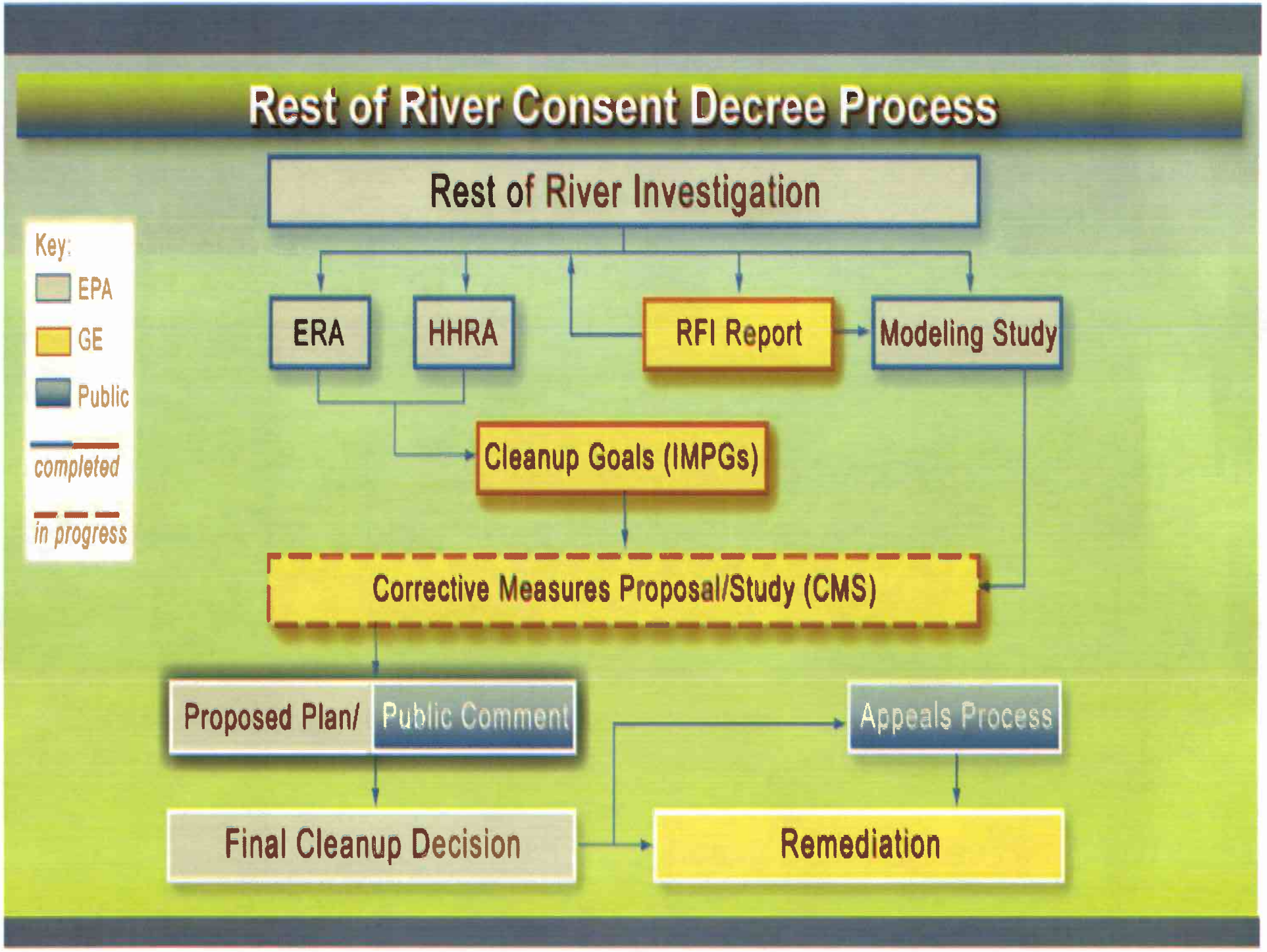
Housatonic River "Rest of River"

- Begins at Confluence of East & West Branches in Pittsfield, MA
- Divided into Reaches 5-9 in MA, Reaches 10-16 in CT
- Majority of PCBs located in Reaches 5 and 6 (10½ miles)
- Includes:
  - Main stem of river
  - Adjacent floodplain
  - Backwaters and tributaries


Pittsfield
Confluence
Reach 5
Reach 6 (Woods Pond)
Reach 7
Reach 8 (Rising Pond)
Great Barrington
Reach 9
Reach 10
Hampshire
Berkshire
Hampden
MASSACHUSETTS
Reach 10
Reach 11
Litchfield
Cornwall Bridge
Hartford
Reach 12
CONNECTICUT
Bulls Bridge
Reach 13
Reach 14 (Lake Lillinonah)
New Haven
Reach 15 (Lake Zoar)
Reach 16 (Lake Housatonic)
Fairfield
Reach 17
Long Island Sound
Rest of River Reach Designations

GE/Housatonic River Site Background

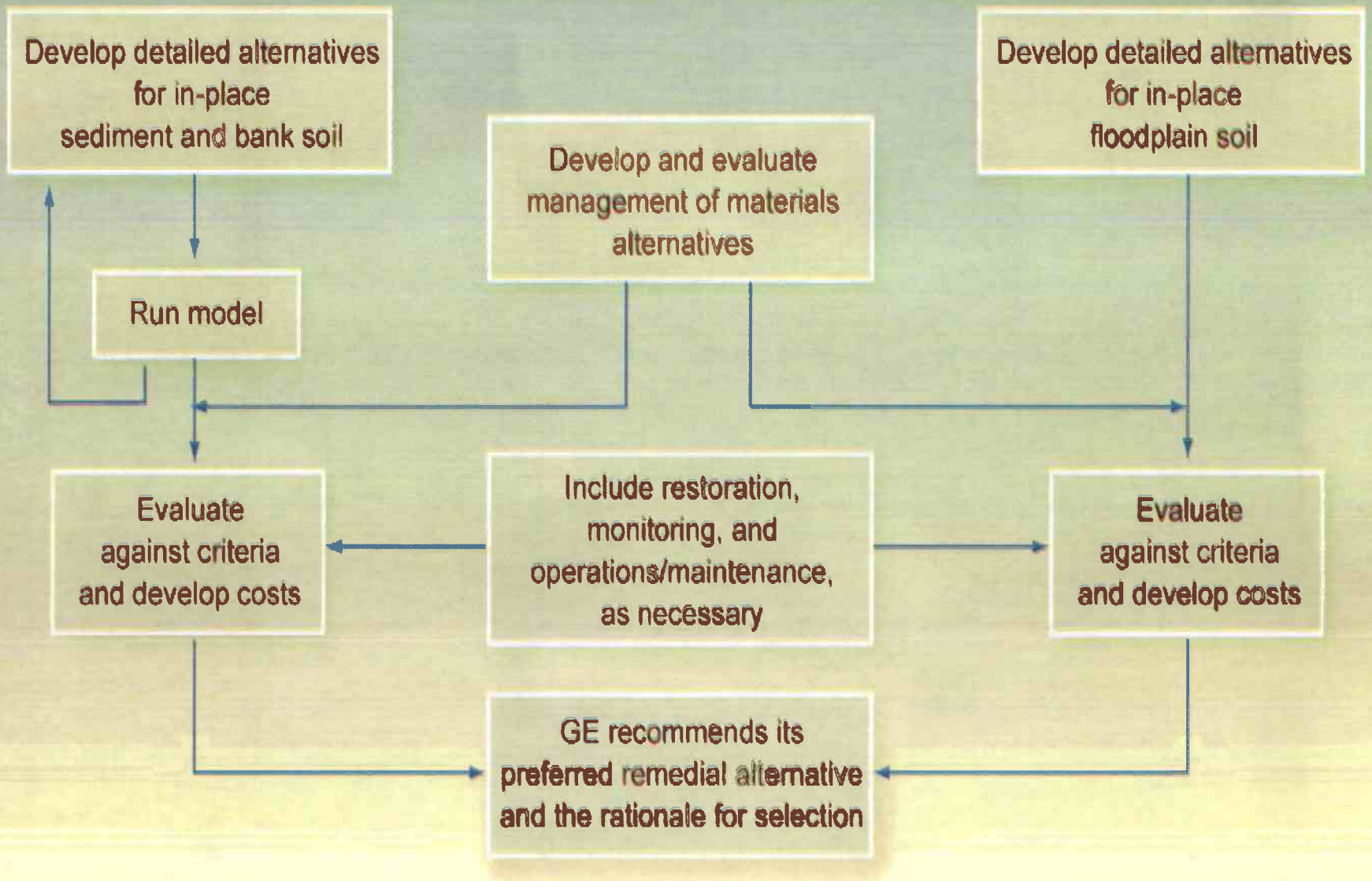
- PCBs used at GE facility in Pittsfield (1932-1977)
  - Released to soil, groundwater, river and other media
  - Only known major source of PCBs to Housatonic River
- Consent Decree approved by court in 2000
  - Calls for river to be addressed in 3 stages:
    - Upper ½-Mile Reach (cleaned up by GE 1999-2002)
    - 1½-Mile Reach (cleaned up by EPA in 2002-2007)
    - Rest of River
  - CD specified that EPA and GE conduct various studies to address contamination in Rest of River


Rest of River Consent Decree Process
Rest of River Investigation
Key:
EPA
GE
Public
completed
in progress
ERA
HHRA
RFI Report
Modeling Study
Cleanup Goals (IMPGs)
Corrective Measures Proposal/Study (CMS)
Proposed Plan/
Public Comment
Appeals Process
Final Cleanup Decision
Remediation

What is a Corrective Measures Study?

- Evaluates potentially applicable technologies and cleanup alternatives
- CMS for Rest of River follows process approved in CMS-P and specified in RCRA permit
- Three categories of remedial actions:
  - In-place sediment and bank soil
  - In-place floodplain soil
  - Management of materials removed
- Evaluation criteria applied separately to each category, then combined into alternatives
- Sediment/bank alternatives evaluated using model framework
- CMS will include GE's recommended alternative

Process for GE Conducting the CMS



Use of the Model in the CMS

- EPA developed a model framework to simulate Rest of River from Confluence to Rising Pond (Reaches 5 to 8)
- Includes three linked mathematical models:
  - Watershed model (HSPF)
  - Water, sediment, PCB fate & transport model (EFDC)
  - Food chain model (FCM)
- Simulates each sediment/bank remediation alternative for minimum 52-yr period, including (as needed):
  - Time for cleanup
  - Residual concentrations
  - Resuspension rates
  - Atmospheric and other PCB and solids loadings
- Ranges of parameter values will be used to evaluate uncertainty
- Model outputs will include water, sediment, fish tissue PCB concentrations over time for each alternative
- Information will be used to evaluate effectiveness and timeframe for each alternative

In-Place Sediment Alternatives

MNR = Monitored Natural Recovery
TLC = Thin-layer Capping

Alt.	Reach 5A	Reach 5B	Reach 5 Erodible Banks	Reach 5C	Reach 5 Backwaters	Reach 6 Woods Pond	Reach 7 Impoundments	Reach 7 Channel	Reach 8 Rising Pond	Reaches 9-16
SED 1	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
SED 2	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR
SED 3	2 ft removal with capping	MNR	Removal/ stabilization	Combination of TLC and MNR	MNR	TLC	MNR	MNR	MNR	MNR
SED 4	2 ft removal with capping	Combination of 2 ft removal with capping and TLC (per depth and velocity)	Removal/ stabilization	Combination of TLC (in shallow and depositional areas) and capping (in deeper areas)	Combination of TLC and MNR	Combination of 1.5 ft removal with capping in shallow areas and TLC in deep area	MNR	MNR	MNR	MNR
SED 5	2 ft removal with capping	2 ft removal with capping	Removal/ stabilization	Combination of 2 ft removal with capping (in shallow areas) and capping (in deeper areas)	Combination of TLC and MNR	Combination of 1.5 ft removal with capping in shallow areas and capping in deep area	MNR	MNR	TLC	MNR
SED 6	2 ft removal with capping	2 ft removal with capping	Removal/ stabilization	2 ft removal with capping	Removal of sediments >50 mg/kg in top 1 ft (with capping/backfill); TLC for remainder >1 mg/kg	Combination of 1.5 ft removal with capping in shallow areas and capping in deep area	TLC	MNR	Combination of TLC in shallow areas and capping in deep areas	MNR
SED 7	3-3.5 ft removal with backfill	2.5 ft removal with backfill	Removal/ stabilization	2 ft removal with capping	Removal of sediments >10 mg/kg in top 1 ft (with capping/backfill); TLC for remainder >1 mg/kg	Combination of 2.5 ft removal with capping in shallow areas and capping in deep area	Removal of higher PCB levels (e.g., >3 mg/kg) in top 1.5 ft (with capping/ backfill); TLC for remainder >1 mg/kg	MNR	Combination of removal of higher PCB levels (e.g., >3 mg/kg) in top 1.5 ft (with capping/ backfill); TLC in shallow areas and capping in deep areas	MNR
SED 8	Removal to 1 mg/kg depth horizon with backfill	Removal to 1 mg/kg depth horizon with backfill	Removal/ Stabilization	Removal to 1 mg/kg depth horizon with backfill	Removal to 1 mg/kg depth horizon with backfill	Removal to 1 mg/kg depth horizon with backfill	Removal to 1 mg/kg depth horizon with backfill	MNR	Removal to 1 mg/kg depth horizon with backfill	MNR

In-Place Floodplain Soil Alternatives

Alt.	Human Health IMPG	Ecological IMPG
FP-1	No Action	No Action
FP-2	Remove/replace top 12 inches to 10^{-4} ICR or HI = 1	As determined to be needed in addition to human health action
FP-3	Remove/replace top 12 inches to 10^{-4} ICR or HI = 1, except high-use areas to 10^{-5}	As determined to be needed in addition to human health action
FP-4	Remove/replace top 12 inches to 10^{-5} ICR or HI = 1	As determined to be needed in addition to human health action
FP-5	Remove/replace top 12 inches ≥50 ppm	As determined to be needed in addition to human health action
FP-6	Remove/replace top 12 inches ≥25 ppm	As determined to be needed in addition to human health action
FP-7	Remove/replace top 12 inches to 10^{-6} ICR but not <2 ppm	As determined to be needed in addition to human health action

ICR – Incidental Cancer Risk
HI – Hazard Index

Technologies Being Evaluated
(Sediment, Bank, and Floodplain Soil)

- No Action
- Engineering/Institutional Controls
- Monitored Natural Recovery (MNR)
- Removal
- Capping
- Bank Stabilization

Management of Materials Alternatives
(after removal)

- Dewatering/water treatment
- *Ex situ* stabilization
- Chemical extraction
- Thermal desorption
- Confined disposal facility (CDF)
- Upland disposal facility
- Off-site permitted landfill

Evaluation Criteria

- Remedial Action Objectives (broad goals)
  - Reduction of risks to human health
  - Reduction of risks to the environment
  - Minimization of downstream transport and control of sources
- General Standards (1st tier of criteria)
  - Overall protection of HH and the environment
  - Control of sources
  - Compliance with ARARS
- Selection Decision Factors (2nd tier of criteria)
  - Long-term reliability and effectiveness
  - Attainment of IMPGs
  - Reduction of TMV
  - Short-term effectiveness
  - Implementability
  - Cost

Interim Media Protection Goals (IMPGs)

- Media-specific cleanup goal(s) for human health or ecological receptors
- Determined by EPA to be protective
- IMPGs for ROR derived by GE, taking into account information in risk assessments
  - HH IMPGs = ICR of 10^{-4} (1 in 10,000) to 10^{-6} (1 in 1,000,000), or Hazard Index (HI) of <1
  - Eco IMPGs = no significant risk to receptors
- IMPG Proposal prepared by GE and approved by EPA in 2006

Process Following GE Submittal of CMS

- EPA evaluates CMS and GE's recommended alternative, considering:
  - Evaluation criteria
  - Input received from public
- EPA may approve, conditionally approve, or disapprove the CMS
- EPA develops preferred alternative for public comment
  - Formal Public Comment Period
- EPA notifies GE of intended cleanup decision and issues Responsiveness Summary
  - GE has opportunity to invoke dispute resolution
- EPA issues final permit modification following resolution of dispute
- Public/GE have right of appeal (EAB and US Appeals Court)
- Following completion of all appeals, GE is required to implement and pay for the remedial action per the Consent Decree

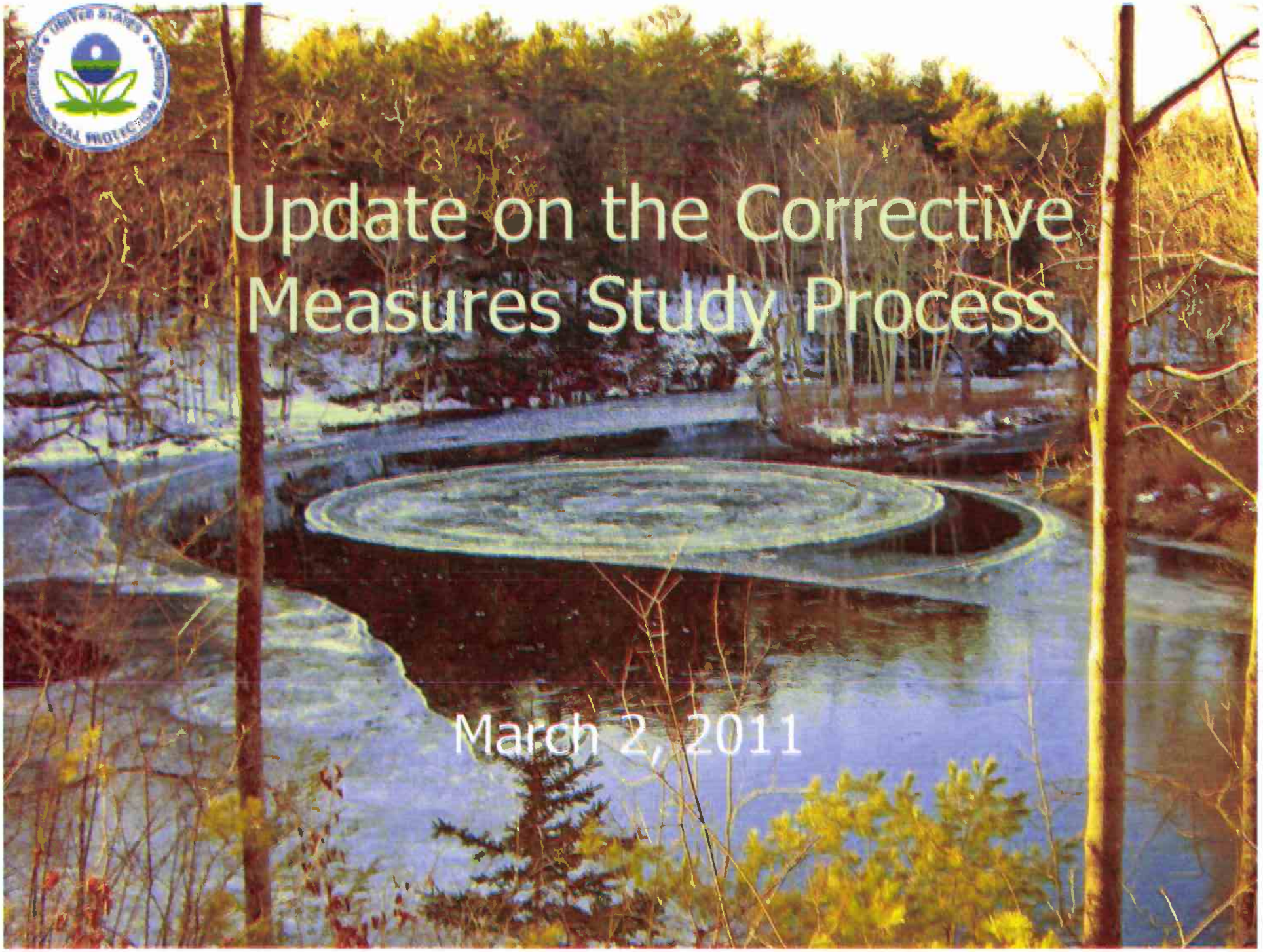
Schedule for CMS Process

- EPA Outreach
  - November 2007 through March 2008:
    - Ongoing meetings with members of public
    - Connecticut CCC Meeting – November 28, 2007
    - Massachusetts CCC Meeting – December 5, 2007
- GE Submits CMS
  - March 21, 2008
- EPA Begins Informal Public Input Period
  - March 22, 2008
- Presentation of CMS
  - Connecticut CCC Meeting – March 26, 2008
  - Massachusetts CCC Meeting – March 27, 2008

Opportunities for Public Involvement

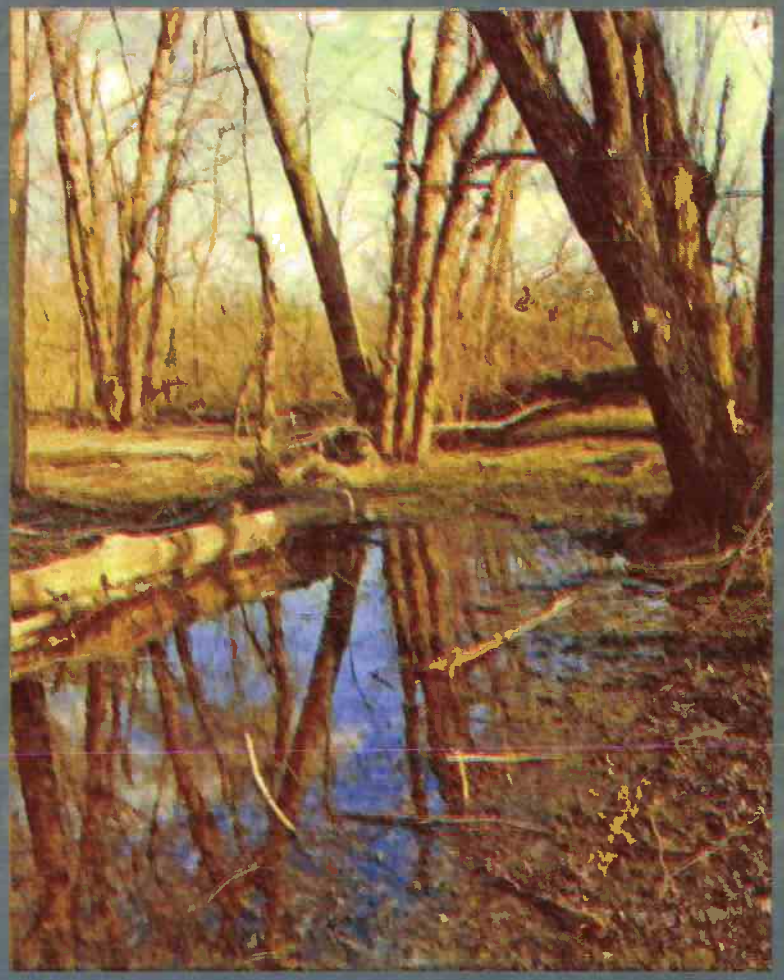
- To obtain more information:
  - All reports available on EPA's GE/Housatonic River website: www.epa.gov/ne/ge under Rest of River
  - EPA Contaminated Sediment Guidance: www.epa.gov/superfund/health
  - Visit an Information Repository
  - Attend a Citizens Coordinating Council (CCC) Meeting
  - Schedule a session with EPA
- To provide input:
  - Informal input period following completion of CMS
  - Organized groups may submit input to NRRB during their review
  - Formal comment period on EPA's Preferred Alternative

EXHIBIT D


Update on the Corrective Measures Study Process
March 2, 2011

Status

- GE submitted its Revised Corrective Measures Study (RCMS) October 10, 2010
- The RCMS provides GE's analysis of 10 sediment, 9 floodplain, and 5 disposal alternatives and its recommended cleanup plan
- Public Input Period originally scheduled to close December 15th, extended to January 31st



EPA's Evaluation of Alternatives

- EPA is evaluating the alternatives in the RCMS considering:
  - Input received from stakeholders
  - The 9 evaluation criteria specified in the RCRA Permit (listed below)
- General Standards
  - Overall protection of human health and the environment
  - Control of sources of releases
  - Compliance with ARARS
- Selection Decision Factors
  - Long-term reliability and effectiveness
  - Attainment of IMPGs (interim cleanup goals)
  - Reduction of toxicity, mobility, volume
  - Short-term effectiveness
  - Implementability
  - Cost

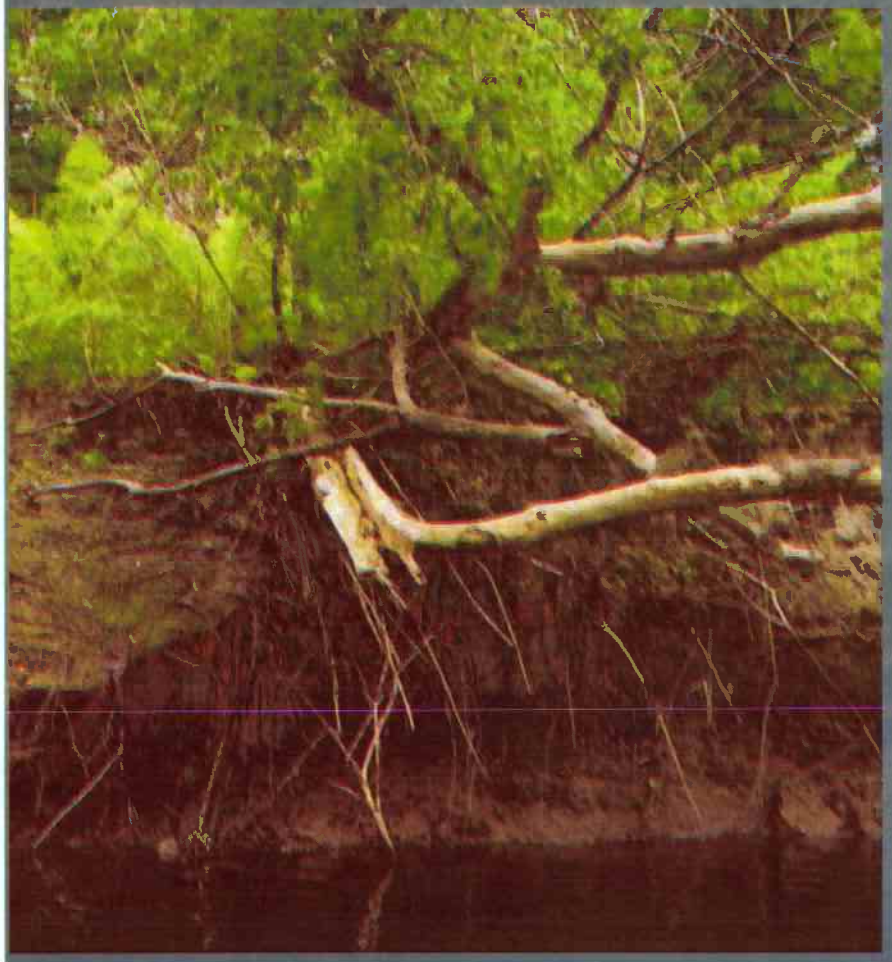
Public Outreach

- EPA has a third-party consultant (Certus) conducting interviews with stakeholders
- These interviews lay the groundwork for a series of mini-workshops and a "charrette"
- A charrette provides an opportunity –
  - for the public to interact with EPA regarding their views on the remedial alternatives
  - to develop an understanding of how EPA must make its decision
- The charrette will be held during EPA's decision-making process
- In addition to the charrette, as in the past, EPA will be available upon request to discuss issues of concern with stakeholders

Schedule for Charrette Activities

- 3 Consecutive Mini Workshops
  - April 5th, 6th, and 7th
- Culminating Charrette
  - May 7th
- Location – Shakespeare & Company, Lenox

Remedy Selection Process



EPA Internal Review/Decision-making – Spring/Summer 2011

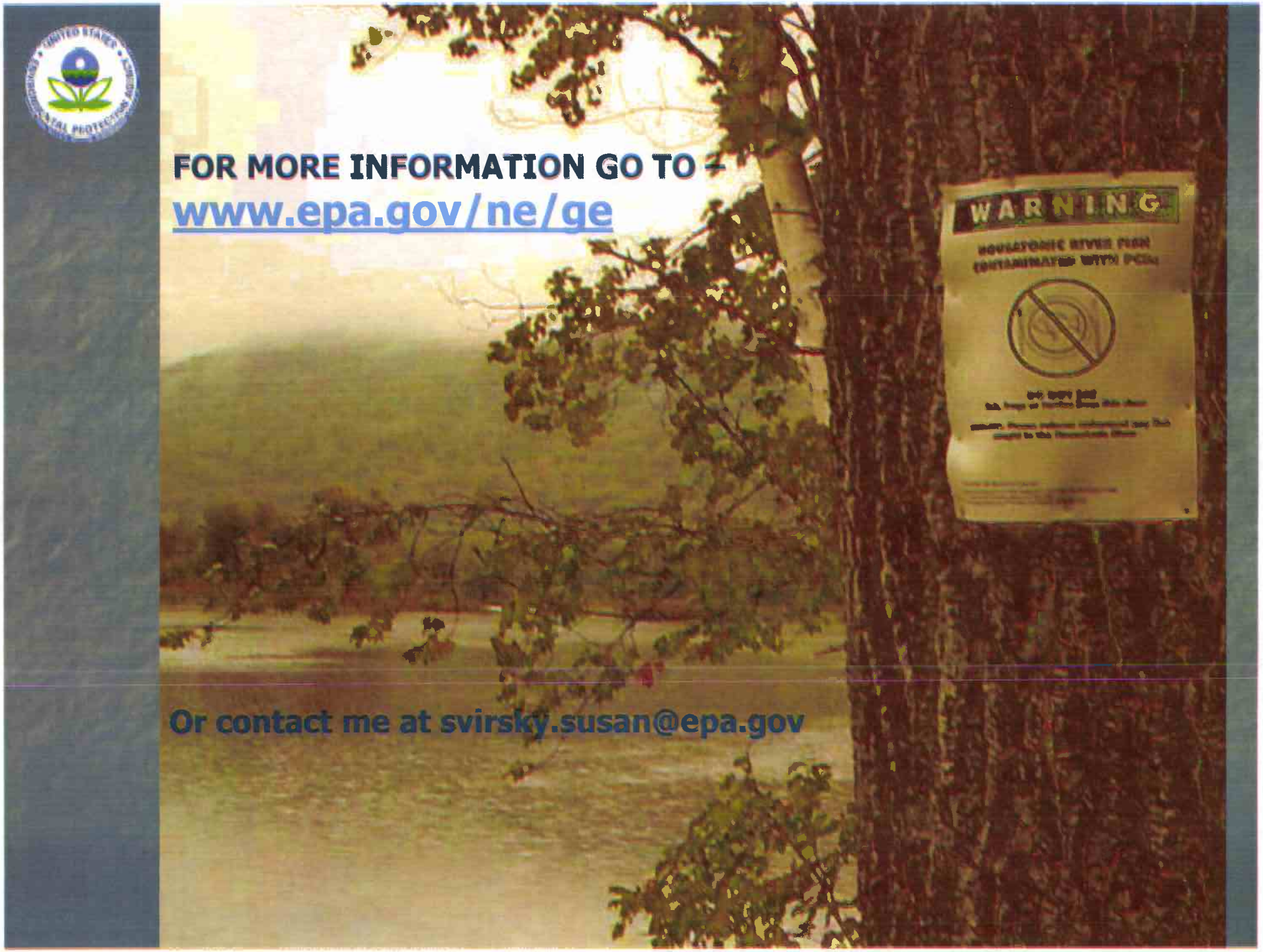
- EPA Region I "Management Review" of Proposed Remedy
- EPA National Remedy Review Board (RRB)
  - Stakeholder groups can submit written comments (up to 10 pages) on the RCMS for RRB consideration
  - Includes coordination by RRB with EPA national Contaminated Sediments Technical Advisory Group (CSTAG)

Remedy Selection Process (continued)

- EPA issues its Proposed Remedy for public comment – target - fall 2011
- Formal Public Comment Period and EPA outreach
- EPA Notifies GE of Intended Final Decision
  - Potential dispute resolution
- EPA issues RCRA Permit Modification ("Remedy Selection"), including response to Public Comments

Remedy Selection Process (continued)

- Public/GE have right of appeal (EAB and US Court of Appeals)
- GE must proceed w/ design of components of the remedy that are not subject to appeal
- EPA may proceed w/ design of components that are appealed (must offer opportunity to GE)
  - If appeal is denied, GE must pay EPA costs
- Once appeals are resolved, GE must design, construct, and pay for the remedy that is upheld
- Implemented as a Superfund remedy



FOR MORE INFORMATION GO TO –

www.epa.gov/ne/ge

Or contact me at svirsky.susan@epa.gov